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ILLUSTRATIONS

OF

BRITISH ENTOMOLOGY;

OR, A

Synopsis of Indigenous Insects:

CONTAINING

THEIR GENERIC AND SPECIFIC DISTINCTIONS;

WITH

AN ACCOUNT OF THEIR METAMORPHOSES, TIMES OF
APPEARANCE, LOCALITIES, FOOD, AND ECONOMY,
AS FAR AS PRACTICABLE.

BY JAMES FRANCIS STEPHENS, F.L.S.

MEMBER OF THE ZOOLOGICAL SOCIETY, ETC.

EMBELLISHED WITH COLOURED FIGURES OF THE RARER AND
MORE INTERESTING SPECIES.

HAUSTELLATA.

VOL. III.

“In his tam parvis tamque ferè nullis quæ ratio! quanta vis! quam inextricabilis
perfectio!”—*Plin.*

“Finis Creationis Telluris est gloria DEI, ex opera Naturæ, per Hominem
solum.”—*Linné.*

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Insects

ILLUSTRATIONS

OF

BRITISH ENTOMOLOGY.

LEPIDOPTERA.

GENUS CX.—EUPLEXIA *mihi*.

Palpi moderate, subclavate, clothed with elongate scales, the terminal joint exposed, obtuse, rather slender; basal joint slightly curved, rather longer than the third, which is somewhat attenuated and acute; the second as long again as the third, and gradually attenuated to the apex, which is obliquely truncate: *maxilla* long. *Antennæ* stout, elongate, closely ciliated in the males, with a few short bristles in the females: *head* small, with a dense frontal crest: *eyes* naked: *thorax* stout, subquadrate, with a double crest posteriorly: *abdomen* moderate, carinated, and crested on the back, the crest on the third segment very long and conspicuous, the terminal segment in the males broad, semicircular, and fringed with long fascicles of hair; in the females somewhat triangular, and but slightly fringed: *wings* short, entire, deflexed, and longitudinally wrinkled during repose: *cilia* emarginate: *stigmata* very large.

Caterpillar naked, smooth: pupa subterranean.

EUPLEXIA differs from Mamestra in having the anterior wings during repose longitudinally wrinkled, the eyes naked, the thorax strongly crested, the wings entire, but the cilia dentate; and the males are further distinguished by the broad semicircular plate at the apex of the abdomen.

Sp. 1. *lucipara*. *Alis anticis purpurascensibus fasciâ mediâ margineque postico fuscis, stigmatè postico flavo.* (Exp. alar. 1 unc. 3—4 lin.)

Ph. No. *lucipara*. *Linné.—Don. vii. pl. 230. f. 2.—Eu. lucipara. Steph. Catal. pt. ii. p. 84. No. 6226.*

Head and thorax dusky-black, crest tipped with purplish-red: anterior wings shining purplish, griseous, or reddish-ash; the base with several irregular black spots and marks; the middle with an angulated fuscous or black fascia, in which the stigmata are placed, the anterior of which is of a plain leaden-brown, the posterior oval, yellow, with a brown hook, and placed on the outer margin of the fascia: the posterior margin fuscous, with an undulated pale striga more or less margined with dusky or black spots: cilia fuscous,

with a pale griseous line at the base: posterior wings pale fuscous, with the base ashy-yellow, an undulated pale striga behind the middle, and another on the hinder margin; cilia as above: abdomen fuscous, with the dorsal fascicles dusky or black.

Var. β . With the anterior stigma expanded over the disc as a large brown spot. Caterpillar grass-green, with the margins of the segments and the sides paler; the head brown; the true legs reddish:—it feeds upon various plants, such as the common bramble, the dock, lettuce, &c., and occurs in the autumn:—the imago appears in the following spring, towards the middle of June, and frequents woody and weedy banks.

Not very common: I have met with three or four specimens at Coombe-wood, and about as many at Darenth. The insect has been taken in Devonshire, and in the New Forest. “Epping.”—*Mr. H. Doubleday*.

GENUS CXI.—*HAMA mihi*.

Palpi short, subclavate, the basal joint clothed with elongate scales, the terminal exposed and conic, about as long as the first, subovate, compressed acute; the first short, rather bent, the second stout at the base, considerably attenuated at the apex: *maxillæ* scarcely as long as the antennæ. *Antennæ* moderate, rather stout, ciliated in the males, and sometimes subserrate, pubescent beneath, with a few bristles, in the females: *head* small, densely pubescent in the forehead: *eyes* large, globose, naked: *thorax* stout, woolly, subquadrate, scarcely crested: *wings* deflexed during repose, not folded; *anterior* rather long, emarginate on the posterior edge: *cilia* nearly entire: *body* moderate, carinated, and sometimes with some short fascicles of scales on the back; the sides and apex tufted in the males, scarcely so in the females.

Caterpillar naked: pupa subterranean.

From *Euplexia*, *Hama* is at once known by its denticulated wings and the nearly smooth thorax, exclusively of the difference in the proportions of the palpi, and the dissimilarity in the antennæ: the wings are not folded during repose, and the cilia are scarcely emarginate. From *Apamea*, its short palpi, and stout antennæ, with its obscurely crested, stout, woolly thorax, and pale wings, with nearly concolorous stigmata, distinguish it.

Sp. 1. *Aliena*. *Alis anticis fusco cinereoque nebulosis stigmatibus strigisque tribus pallidioribus, externâ bidentatâ*. (Exp. alar. 1 unc. 5—7 lin.)

No. *Aliena*. *Hübner*.—*Mamestra Aliena*. *Steph. Catal. pt. ii. p. 93. No. 6223*.

Head and thorax dark cinereous, the latter intermixed with white and black atoms: anterior wings clouded with fuscous and cinereous; in general with an indistinct darker central fascia, occupying the space between the second and third ordinary strigæ, and in this the stigmata are placed, the anterior

of which is pale immaculate ash, the posterior clouded with dusky, and more or less distinctly bordered with white, as in *Mamestra Brassicæ*: on the posterior margins of the wing is a considerably undulated pale striga, with two distinct angulations, as in most of the insects of the two preceding genera: posterior wings pale cinereous, with a central lunule, the nervures and hinder margin fuscous, the latter sometimes with an obscure pale striga towards the anal angle.

Not very abundant: taken occasionally in gardens and shrubby places in the vicinity of the metropolis, and in other parts. “*Allesley*.”—*Rev. W. T. Bree*. “*Bottisham*.”—*Rev. L. Jenyns*.

Sp. 2. *basilinea*. *Alis anticis fusco-griseis undatis, lincolæ baseos atræ*. (Exp. alar. 1 unc. 5—7 lin.)

No. *basilinea*. *Wien. V.*—*Ha. basilinea*. *Steph. Catal. pt. ii. p. 84. No. 6227*.

Head and thorax ashy-brown, the latter sometimes with a griseous tinge: anterior wings the same, with the ordinary strigæ usually very obsolete, but sometimes more distinct, with dusky margins, and always bearing a distinct though variable black streak at the base, which is generally flexuous and somewhat bifid at the apex; the stigmata are rather variable in form; the anterior rather pale, the posterior with a dusky patch towards the inner margin of the wing, and more or less bordered with whitish: towards the hinder margin of the wing is a slightly undulated pale striga, and on the margin itself is a row of minute trigonate black spots; posterior wings nearly plain fuscous-ash, with the hinder margin, nervures, and central spot darker.

The anterior wings are occasionally varied beautifully with light griseous or rosy.

Caterpillar light gray, with a broad whitish dorsal, and a pale lateral line:—it feeds on grasses in the autumn; the imago is produced towards the end of June, and frequents woody places and gardens.

Found throughout the metropolitan district, but not very common. “*Kimpton*.”—*Rev. G. T. Rudd*. “*Epping*.”—*Mr. H. Doubleday*.

Sp. 3. *testacea*. *Alis anticis testaceis, strigis duabus fasciâque marginali fusciscentibus, strigâ posticâ pallidâ; posticis albis*. (Exp. alar. 1 unc. 3—7 lin.)

No. *testacea*. *Hübner*.—*Ha. testacea*. *Steph. Catal. pt. ii. p. 84. No. 6228*.

Extremely variable: head and thorax testaceous: anterior wings the same, a little clouded, with an interrupted waved striga before the middle, and an arcuated one, composed of black lunules, and margined externally with ochraceous, behind the middle, the stigmata being placed between: these are rather small, fuscous, and indistinctly margined with fuscous and white; there is a third stigma arising from the second striga, formed by a black hook, which frequently produces a black streak, which is prolonged to the third striga: the hinder margin of the wing is irregularly dusky or fuscous, and is pre-

ceded by a pale undulated striga, which forms its anterior outline: cilia cinereous, with darker spots: posterior wings white, with a somewhat interrupted marginal fuscous streak: cilia rufescent.

Some examples are of a deep fuscous or rufescent tinge, clouded with black, with two strigæ, and a marginal fascia dusky:—others are very pale testaceous, scarcely clouded, with a deep black mark in the centre of the wings resembling the letter X, with an arcuated striga of black lunules behind the middle:—while some are nearly immaculate.

Extremely abundant in the autumn in some years, though in general somewhat rare. In 1818 and 1819 it was in the utmost profusion at Birch-wood and its vicinity. “Epping.”—*Mr. H. Doubleday*. “Alderley.”—*Rev. E. Stanley*. “Kimpton.”—*Rev. G. T. Rudd*.

† Sp. 4. *connexa*? *Alis anticis albedo-cinereis, fasciâ in medio bifidâ fuscâ lineolâ obscuriore conjunctâ, posticis cinereis fimbriâ saturatiore.* (Exp. alar. 1 unc. 4 lin.)

No. *connexa*? *Bork.*?—*Ha. connexa.* *Steph. Catal. pt. ii. p. 84. No. 6229.*

Head and thorax cinereous, the latter with brownish streaks: anterior wings whitish-ash, with a black lineola at the base, and a bifid central fuscous fascia, united by an obscure dusky streak, as in many individuals of the last described insect; the stigmata are rather pale, with the posterior clouded with dusky; the posterior margin of the wing is slightly clouded with fuscous, and has a faint and slightly undulated striga: posterior wings ashy-gray, with the margins darker, or fuscous.

There is a specimen of this insect, I believe, in Mr. Haworth's cabinet, which he obtained from that of the late Mr. Francillon: of its locality I am not aware.

GENUS CXII.—APAMEA, *Ochsenheimer*.

Pulpi moderate, subclavate, the basal joints clothed with elongate broad scales, the terminal exposed, obtuse, not so long as the basal, very slender, compressed, the apex obtuse, the intermediate joint as long again as the first, slightly bent and somewhat acute at each extremity, basal joint a little curved, rather slender at the base: *maxillæ* as long as the antennæ. *Antennæ* very slender, pubescent beneath, pilose in the males: *head* with a dense fascicle of scales on the crown: *eyes* globose, naked: *thorax* subquadrate, slightly crested, the crest anteriorly and posteriorly bifid: *wings* deflexed during repose; *anterior* elongate triangular, obtuse, the apex in the two first species slightly acuminate: *abdomen* moderate, scarcely tufted on the back and sides, the apex with a small tuft, obtuse in the males, acute in the females. Caterpillar naked: pupa subterranean.

Apamea consists of a group of extremely variable and sombre insects, which are generally distinguished by having the posterior stigma very conspicuous; the palpi are short, very slender at the base, and subclavate, with the terminal joint exposed and obtuse; the thorax is crested, the crest distinctly cleft anteriorly and posteriorly; the anterior wings are elongate-triangular, obscurely denticulated, and in general obtuse on the hinder margin. Whether all the species as hereunder described are really distinct, I will not undertake to affirm, but they appear to possess sufficiently distinct specific characters. Treitschke unites several under one name, but evidently incorrectly.

Sp. 1. *fibrosa*. *Alis anticis ferrugineo-castaneis, stigmatē reniformi albicanti, fasciā posticā pallidiore.* (Exp. alar. 1 unc. 4—8 lin.)

No. *fibrosa*. Hübner.—Ap. *fibrosa*. Steph. Catal. part ii. p. 85. No. 6230.

Head, thorax, and anterior wings glossy rusty-chestnut, the latter with a broad paler fascia towards the apex, which is irregularly clouded with fuscous, the fuscous tip bounded on its anterior edge with a pale undulated striga; the anterior stigma subovate, its pale margins above conspicuous: posterior sublunate, white, or griseous in the middle, with a white margin, the latter sometimes united to a bifid white line, formed by the central nervure, and the two branches which divide at the base of the stigma being of that colour: abdomen and posterior wings fuscous.

This varies considerably in colour: in some examples the pale posterior fascia is but little evident, while in others it becomes nearly ochraceous, and the stigmata very pale: the insect decidedly appears to differ from the rest of the genus, and Treitschke removes it to the genus *Gortyna*, with which however it is difficult to conceive that it ought to be associated; the form and texture of its wings appearing so dissimilar:—whether the larva has the habit of those of the *Gortynæ*, I cannot comprehend from Treitschke's German description:—it feeds on the *Iris Pseudacorus*, and is whitish and membranous, with the back dirty brownish-red, with a brown head, and a few black or dusky spots.

Taken at Whittlesea-mere, in Cambridgeshire, in profusion, towards the middle of July, 1822.

Sp. 2. *nictitans*. *Alis anticis flavo- aut fusco-ferrugineis, strigis obscurioribus, stigmatē orbiculari luteo aut rufo, reniformi sæpē aurco-albo.* (Exp. alar. 1 unc. 2—4 lin.)

Ap. No. *nictitans*. Linné?—No. *auricula*. Don. xii. pl. 397. f. 3.—Ap. *nictitans*. Steph. Catal. part ii. p. 85. No. 6231.

Head, thorax, and anterior wings of a glossy yellowish or brownish-rust colour, with about six or seven equidistant pale fuscous slightly undulated strigæ, which are more or less obliterated in different individuals; the anterior stigma

is small, orbicular, and generally luteous or rufous; the posterior is large, ear-shaped, usually of a whitish-gold, but occasionally rufous or luteous, and is in general slightly strigulated with brown: posterior wings dusky, with rufescent cilia.

I cannot perceive any characters indicative of specific difference between this insect and the *Noctua erythrostigma* of Haworth; which appears to me to be simply a variety differing from the type, as some of the varieties of *Glæa satellitia* differ from their type. I possess various intermediate gradations, and have seen others, but from the infrequency of the insect in Britain, few cabinets contain a sufficient number of specimens to decide the question satisfactorily. Whether it be really synonymous with *Ph. No. nictitans* of Linné, I am not positive, but the best continental writers conceive that it is identical.

Rare; but taken occasionally on the heaths near Birch-wood towards the end of July or beginning of August; also near Margate, and in Devonshire, and the New Forest. “Isle of Arran.”—*Dr. Leach*.

Sp. 3. *secalina*. *Alis anticis griseo fuscoque variis, strigis duabus pallidioribus, stigmatibus albicantibus.* (Exp. alar. 1 unc. 4—6 lin.)

No. *secalina*. *Hübner*.—*Ap. secalina*. *Steph. Catal. part ii. p. 85. No. 6233.*

Head and thorax griseous, with fuscous clouds and atoms: anterior wings griseous, varied with fuscous, with a few darker clouds of the same, with an abbreviated darker fascia in the middle, in which the stigmata are placed, the anterior of which is placed obliquely, and slightly margined with whitish; the posterior fuscous, edged with white: between the fascia and the posterior margin is a dusky angular costal patch, in which are three or four white costal dots: on the hinder margin is an undulated pale striga: posterior wings fuscous, with rufescent cilia.

As in its congeners, this species varies much; in some examples the wings are paler and less rufescent, with the stigmata larger and whiter; in others there is a black hook or streak, as in *Ap. I-niger*.

Treitschke unites this and the three following species, with the exception of *unanimis*, under the name *Ap. didyma*; but in my opinion erroneously, for it is impossible for a cognate species to be more distinct than the present is from its congeners: with respect to the two succeeding insects, I am inclined to his views, but even with them their characters appear sufficient for specific distinction.

Found, though very rarely, in the neighbourhood of London, at the end of July; I possess a pair from Birch-wood, and it has been found in Battersea-fields.

Sp. 4. *didyma*. *Alis nigris subnebulosis stigmatibus reniformi niveo.* (Exp. alar. 1 unc. 3—4 lin.)

No. *didyma*. *Borkhausen*.—*Ap. didyma*. *Steph. Catal. part ii. p. 85. No. 6232.*

Head, thorax, and anterior wings deep obscure black, the latter with a few darker clouds and obsolete strigæ: the costa with a few ochraceous or pale luteous spots, from which sometimes arise some obscure lutescent strigæ: towards the hinder margin is a waved series of lutescent spots: the anterior stigma is minute and nearly obsolete, the posterior usually snow-white, with a minute white spot or two adjoining: cilia a little clouded with dusky: abdomen and posterior wings fuscous, the base of the latter palest.

The colour of the posterior stigma varies: in some examples it is whitish, in others luteous, or flavescent.

Not very frequently met with: it is found, however, occasionally in Copenhagen-fields, and in other similar and woody places in the metropolitan district: in the years 1818 and 1819, it was in plenty at Dover, in the beginning of August, having captured a fine series there during those periods. “Alderley.”—*Rev. E. Stanley.*

† Sp. 5. unanimitis.

Ap. unanimitis. *Ochsenheimer*.—*Steph. Catal. part ii. p. 85. No. 6234.* Noctua unanimitis. *Hübner.*

With regard to this insect I am compelled to remain silent, never having seen a specimen: there seems to be some uncertainty about it with authors; *Ochsenheimer* in his Catalogue, p. 75, gives it as an *Apamea*; but his friend and posthumous editor, *Treitschke*, omits it in his account of this genus, but refers it to *Hadena gemina*, giving his readers his reason in a long German disquisition, at the end of his description of *Ap. didyma*:—it will therefore probably sink as a species.

Mr. Dale informed me that he captured a specimen in Scotland.

Sp. 6. oculea. *Alis anticis fusco ferrugineoque variis aut nebulosis, obsolete strigatis, stigmatibus reniformi albido.* (Exp. alar. 1 unc. 2—5 lin.)

Ph. No. oculea. *Linné*.—Ap. oculea. *Steph. Catal. part ii. p. 85. No. 6235.*

Head and thorax fuscous: anterior wings fuscous, varied or clouded with ferruginous, with two obsolete paler strigæ, one before, the other behind, the middle, and the colour darker between; between them the stigmata are placed, the anterior inclining and elongate; the posterior reniform and white; with one or two adjoining white dots; near the posterior margin is an undulated pale striga, and the hinder margin is clouded with fuscous; the abdomen and posterior wings uniform fuscous.

This species is subject to considerable variety: in some examples, the anterior wings are rufescent, and but little clouded, with the posterior stigma luteous or flavescent, with an adjoining white spot: in others, the wings are rusty-brown, with the posterior stigma of a deep ashy-brown:—while occasionally

the anterior wings are nearly of an uniform immaculate fuscous, without a ferruginous or rufescent tinge.

All the varieties are destitute of those deep black longitudinal streaks which form so conspicuous a character in the next species.

An insect that occurs throughout the metropolitan district in the greatest abundance, frequenting hedges, fields, and pastures, during the month of August. "Bottisham."—*Rev. L. Jenyns*. "Kimpton."—*Rev. G. T. Rudd*. "Epping."—*Mr. H. Doubleday*. "Common in Salop."—*Rev. F. W. Hope*.

Sp. 7. *I-niger*. *Alis anticis griseo fuscoque variis, literâ I nigrâ in medio*. (Exp. alar. 1 unc. 3—4. lin.)

No. *I-niger*. *Haworth*.—*Ap. I-niger*. *Steph. Catal. pt. ii. p. 85. No. 6236*.

Extremely variable: head and thorax fuscous, the crest of the latter, in fine specimens, rufescent at the apex: anterior wings pale griseous or fuscous, with a darker central fascia, bounded by two pale strigæ, which are united near the inner margin by a black streak resembling the letter I; in this the stigmata are placed, the anterior wing elongate and oblique, with a black margin, the posterior ochraceous or whitish, with a dark spot at the base, and a duplex pale one at its apex: at the base of the wing are two short black lineolæ, one of which is on the inner margin; the posterior margin is clouded with fuscous; behind are faintly indicated pale strigæ: posterior wings fuscous.

The colour varies; but all the specimens have the two basal and the central black lineolæ in the anterior wings: the posterior stigma is sometimes of a snowy white, at others deep fuscous, and of all intermediate shades.

Also an insect that abounds in the London district, and I believe throughout the surrounding neighbourhood, in the beginning of August. "Bottisham."—*Rev. L. Jenyns*. "Marton Lodge."—*L. Rudd, Esq.* "Epping."—*Mr. H. Doubleday*. "Shropshire."—*Rev. F. W. Hope*.

Sp. 8. *furca*. *Alis anticis ochraceis aut subrufis, margine costali posticoque irregularitèr latè fuscis*. (Exp. alar. 1 unc. 3—4 lin.)

No. *furca*. *Haworth*.—*Ap. rava*. *Steph. Catal. pt. ii. p. 86. No. 6237*.

Head and thorax fuscous, sometimes with a rufescent tinge: anterior wings ochraceous or rufescent, with a broad undefined fuscous patch on the costa, in which the stigmata are placed; these vary in colour, as in the two last described, and their form is similar; the ordinary strigæ are more or less evident, and each nervure, towards the hinder margin of the wing, has two black spots, which form a kind of geminated striga; the posterior margin of the wing, excepting the apex, is irregularly fuscous, the latter being bounded anteriorly by an undulated striga, which is more or less margined with fuscous: the posterior wings are deep fuscous: abdomen the same.

Extremely variable in colour, and in the intensity of its markings: in some examples the pale posterior of the wing is nearly immaculate, in others considerably spotted with dusky or black.

Nocturæ furca and rava of Haworth are evidently both referrible to the same species; and as the former name is first in order, I have preferred it to designate the species, which Treitschke considers as a mere variety of his *Ap. didyma*.

Not uncommon in August about London, frequenting the hedges of pastures and meadows. In abundance at Hertford and Ripley. “Bottisham.”—*Rev. L. Jenyns*. “Netley.”—*Rev. F. W. Hope*.

Sp. 9. *ophiogramma*. *Alis anticis ochraceis maculâ magnâ subovale costali nigro-fuscâ lineâ longitudinali repandâ albâ*. (Exp. alar. 1 unc. 3—4 lin.)

No. *ophiogramma*. *Esper*.—*Ap. ophiogramma*. *Steph. Catal. part ii. p. 86. No. 6238*.

Head and thorax ochraceous-ash, the latter with a transverse black line in front: anterior wings of an ochraceous or griseous hue; with a large subovate deep fuscous costal patch, in which the stigmata are placed; this is bounded, in fine specimens, with a repanded longitudinal white line; on the anal angle of the wing is a cuspidated black spot, and another smaller one on the hinder margin near the costa: the stigmata vary in colour, but the posterior is usually griseous: posterior wings whitish-ash, with an obscure transverse striga.

Rare: specimens have been taken near Woolwich, in Epping-forest, in meadows near Hackney, and in Copenhagen and Battersea-fields.

GENUS CXIII.—MIANA *mili*.

Palpi short, porrected obliquely, the two basal joints sparingly clothed with elongate scales, the terminal one exposed, somewhat acute, and placed obliquely, very slender when denuded; the basal joint short, stouter than the following, which is slightly curved, attenuated towards the apex, and nearly three times as long as the basal; terminal elongate-ovate, nearly as stout as the second, and about the length of the basal: *maxillæ* elongate. *Antennæ* short, finely ciliated and pubescent in the males, simple in the females: *head* with a frontal crest: *eyes* naked: *thorax* subquadrate, with a posterior dorsal crest: *abdomen* slender, with a small tuft at the apex in the males, and a little crested on the back: *wings* entire, deflexed, anterior elongate-triangular, with indistinct, nearly concolorous, stigmata. Caterpillar naked: pupa subterranean.

The insects of this genus are amongst the smallest of the Noctuidæ, and, like those of the cognate genera, they are extremely prone to vary: it is therefore not without considerable doubt that I have given them nearly as described by Mr. Haworth, who, in another place, justly remarks, “When neighbouring *species* abound

in *varieties*, it becomes difficult to separate them correctly:”—as such is the case with the *Mianæ*, and but little attention has been paid to the rearing of them, it would clearly be hazardous to unite them, till experience clears up the point.

The species of this genus may be known from the preceding by the small size and the nearly concolorous posterior stigmata on their anterior wings, the smallness of their palpi, slenderness of their body, and by the thorax not being crested anteriorly; exclusive of their gracile palpi, and their proportions when denuded.

Sp. 1. *litorosa*. PLATE 25. f. 1.—“*Alis anticis glaucis strigâ posticâ flexuosâ rosâ, lineolis literæ formibus in medio nigris*.”—Haw. (Exp. alar. 10—11 lin.)

No. *litorosa*.—Haworth.—Mi. *litorosa*. *Steph. Catal. part ii. p. 86. No. 6239.*

Head cinereous: thorax anteriorly cinereous, with a dusky transverse line, the disc and sides rosy, the crest cinereous: anterior wings glaucous-ash, tinged with rosy, with a bright rosy flexuous posterior striga, followed by a pale one; the base of the wings of a darker hue than the apex, stigmata pale, the anterior with a black streak on each side, the posterior with a black streak on the anterior edge alone; between the stigmata and the hinder margin is usually a longitudinal abbreviated black line; the posterior stigma is pale glaucous, and behind it arises a considerably arcuated, though obscure paler striga; on the hinder margin of the wing is an interrupted brownish-red line: cilia fuscous, with a rosy tinge: posterior wings pale fuscous.

In some examples the black streaks on the anterior wings are obsolete.

This beautiful species, although rare, I have frequently captured at Darenth-wood, about the middle of July, flying towards dusk over the low hedges of the fields leading to the wood from the lane: it has also been found at Dover and in other places. “Epping.”—*Mr. H. Doubleday*. “Near Wanstead.”—*Mr. Bentley*.

Sp. 2. *strigilis*. *Alis anticis anticè cinereo fuscoque variis, posticè albo strigâ undatâ pallidiore margine fusco nebuloso*. (Exp. alar. 10 lin.—1 unc. 1 lin.)

Ph. No. *strigilis*. *Linné*.—Mi. *strigilis*. *Steph. Catal. part ii. p. 86. No. 6240.*

Head and thorax ashy-brown, the latter with a transverse dark streak anteriorly: anterior wings with an undulated black striga at the base, bounded externally with white; then a whitish one edged with black on its outer margin, followed by the ordinary stigmata, which are cinereous; and behind the posterior one is a third, arcuated, white striga, through which pass some abbreviated black streaks; this is followed by a broad white fascia, which terminates in a pale undated striga, the space between which and the hinder margin is clouded with griseous and fuscous: the cilia are dusky-brown, with pale streaks: the posterior wings fuscous: the cilia cinereous.

This species varies much: in some examples the second and third strigæ are





united by a black line, which is more or less distinct in various species:—in others, the space between the stigmata is black: while some have the broad white posterior fascia suffused with reddish, and in others it is nearly ochraceous.

Caterpillar ashy-white, with a dorsal and two lateral lines violaceous, and black stigmata; head small, yellowish-brown.

Not very common: taken occasionally in woody places near London, also in Devonshire, the New Forest, in Norfolk, Suffolk, and near Cheltenham, &c. “Matlock.”—*Rev. F. W. Hope*. “Alderley.”—*Rev. E. Stanley*. “Kimpton.”—*Rev. G. T. Rudd*.

Sp. 3. *latruncula*. *Alis anticis fuscis cupreo micantibus stigmatibus strigisque pallidioribus*. (Exp. alar. 10 lin.—1 unc. 1 lin.)

No. *latruncula*. *Hübner*.—*Mi. latruncula*. *Steph. Catal. part ii. p. 86. No. 6241*.

Head and thorax as in the last, but darker: anterior wings fuscous or reddish-ash, with very obsolete strigæ, and the posterior margin more or less glossed with cupreous: stigmata usually paler than the disc: posterior wings deep fuscous, with reddish cilia.

A most variable species, both in size and colour: in some specimens the latter is nearly of a pale uniform cinereous, with the margins of the stigmata and those of the ordinary strigæ dusky or black: others have a broad whitish fascia on the posterior margin, nearly as in the last-mentioned species, some dusky, or nearly black; but in all the varieties the greater uniformity in the colouring of the basal half of the wing, the striga being very obsolete in general, distinguishes this species from *Ag. strigilis*.

More abundant than the preceding insect; frequenting the same haunts, and almost too closely allied to be really distinct: it is however smaller, and in the present state of our knowledge it is advisable to keep it separate; for as Mr. Haworth says, when speaking of this genus, “to join them into one would be a capital error, no less indeed than mistaking a section for a species.” “*Bot-tisham*.”—*Rev. L. Jenyns*.

Sp. 4. *Æthiops*. *Alis omnibus nigris, anticis atro nebulosis*. (Exp. alar. 11 lin.—1 unc.)

No. *Æthiops*. *Haworth*.—*Mi. Æthiops*. *Steph. Catal. part ii. p. 86. No. 6242*.

Entirely black, or very deep fuscous; the anterior wings with several darker clouds, or very black lineolæ; the posterior margin faintly cupreous, with an obscure paler undulated striga.

Var. β . Much paler, but marked as in var. α .

Not uncommon, and found with the preceding insect, from which

it chiefly differs by the dinginess and uniformity of its colours, especially of the hinder portion of the anterior wings.

Sp. 5. humeralis. *Alis anticis æqualitè anticè fuscis, posticè cinereo-albidis, margine postico fusco; corpore elongato.* (Exp. alar. 10—12 lin.)

No. humeralis. *Hübner.*—Mi. humeralis. *Steph. Catal. part ii. p. 86. No. 6243.*

Head and thorax cinereous or whitish: anterior wings from the base to beyond the middle cinereous or fuscous, sometimes dusky; then a broad white or pale ashy space, more or less clouded with fuscous, and bearing towards the hinder margin of the wing an undulated pale striga, between which and the hinder margin is irregularly clouded with fuscous: cilia cinereous with darker clouds: body rather long. Anterior wings sometimes nearly of an uniform pale ochraceous or whitish-ash, with the usual markings very indistinct; at others nearly of an uniform pale cinereous, with the posterior half rather paler than the base: posterior wings in all the varieties pale fuscous, with the margin darkest.

Not very common round London, but in the utmost profusion near Dover about the middle of August; also at Hastings, Brighton, and Shoreham. I have occasionally taken it at Hertford and Ripley. “Bottisham.”—*Rev. L. Jenyns.*

Sp. 6. terminalis. *Alis fusco-rufescentibus margine postico undatim nigricante.* (Exp. alar. 10—13 lin.)

No. terminalis. *Haworth.*—Mi. terminalis. *Steph. Catal. part ii. p. 86. No. 6244.*

Closely allied to some of the varieties of the last, but of a sombre hue, and without the white posterior fascia on the anterior wings; which latter are scarcely clouded, but are of an uniform rufescent brown, with the hinder margin slightly clouded with fuscous, and bearing an undated pale striga: cilia cinereous: posterior wings deep brown, with ashy cilia.

This also varies: in some examples there are a few dark scattered marks towards the centre of the anterior wings, and the posterior are cinereous, with a dark broad fuscous margin.

Taken near London, about Walthamstow, Darent and Coombe woods; not uncommon in the Isle of Dogs and near Stratford-le-Bow; and in Copenhagen-fields: rare near Dover, where the preceding abounds.

Sp. 7. rufuncula. “*Alis toto rufis, strigis tribus obsoletissimis pallidioribus.*”—*Haw.* (Exp. alar. 10—12 lin.)

No. rufuncula. *Haworth.*—Mi. rufuncula. *Steph. Catal. pt. ii. p. 86. No. 6245.*

Thorax, abdominal tuft, and anterior wings rufous, the latter with two straight paler strigæ in the middle, and another waved one towards the hinder margin,

but rather obscure; on the margin itself is a row of very minute lunate-triangular black spots: posterior wings reddish-brown, with rufous cilia.

I have a single example only, which is too much injured to describe.

Taken in Norfolk and in Suffolk.

Sp. 8. *fasciuncula*. *Alis anticis rufis aut ochreo-griseis, in medio fasciâ latâ saturatiore stigmatibus ordinariis pallidioribus interruptâ.* (Exp. alar. 9½—12 lin.)

No. *fasciuncula*. Haworth.—Mi. *fasciuncula*. Steph. Catal. pt. ii. p. 86. No. 6246.

Head, thorax, and anterior wings deep rufous; the latter with a darker central fascia, greatly attenuated, and brownish towards the inner margin, where it is obsoletely margined with white, the edging formed of a portion of the ordinary central strigæ; in the hinder margin are a few reddish-brown clouds, and the cilia are fuscous, with a red tinge: posterior wings fuscous, with whitish or cinereous cilia.

Var. *β*. With the head, thorax, and anterior wings of an ochraceous or whitish red, the latter with darker clouds, and a dusky-brown streak uniting the two central strigæ, towards the inner margin of the wing.

This very distinct, though variable, species is occasionally found in Copenhagen-fields, near the entrance of Agbush-lane, but it is far from common. I have specimens from Hertford.

† Sp. 9. *minima*. “*Alis rufo-cinereis, maculis duabus ordinariis strigisque tribus pallidioribus.*” Haworth. (Exp. alar. 8 lin.)

No. *minima*. Haworth.—Ap. *minima*. Steph. Catal. pt. ii. p. 86. No. 6247.

Anterior wings with a straight white striga before the middle, intersected with black lines: then the usual stigmata appearing like small round spots, and between them a fuscous cloud, which reaches to the costa; then an arcuated white striga, as in Ap. *rufuncula*; and lastly, a broader undated pale striga towards the posterior margin: cilia cinereous: posterior wings fuscous, with white cilia.

Few examples of this insect, which is the smallest of the Noctuidæ, are in collections. Mr. Haworth captured a single specimen many years since at Darenth-wood; it has since been taken in other parts. “Whittlesea-mere.”—*Messrs. Bentley and Chant.*

GENUS CXIV.—CELÆNA *mihi*.

Palpi not very short, porrected obliquely, the two basal joints densely clothed with elongate scales, the terminal exposed, rather obtuse, sublinear: basal joint short, reniform, scarcely stouter than the second, which is nearly linear, a little curved and slightly acute; terminal stouter than the first, elongate-ovate,

obtuse: *maxillæ* elongate. *Antennæ* moderate, rather stout, pubescent beneath, and ciliated in the males: *head* with a dense tuft of scales on the crown: *eyes* naked: *thorax* large, somewhat downy, not crested: *body* rather short and slender, the sides and apex tufted, the apical tuft largest in the males: *wings* deflexed, entire; *anterior* elongate-triangular, obtuse; *stigmata* especially the posterior, conspicuous, and not concolorous.

In bulk, the *Celænæ* nearly resemble the insects of the preceding genus, but they may be distinguished therefrom by their broader anterior wings, which have the posterior stigmata very conspicuous, and in general the adjoining nervures pale, as in *Nænia*: the thorax is stout, rather pubescent, and not crested; the palpi densely clothed with elongate scales, with the terminal joint exposed, somewhat linear and obtuse, not subacuminate, as in *Miana*:—they are less variable than the insects of the last genus, and appear to frequent damp situations, being usually found on the borders of extensive sheets of water.

Sp. 1. *renigera*. PLATE 25. f. 2. *Alis anticis virescente-fuscis flavo variis, fasciâ in medio saturatiore, in quâ stigmata ordinaria sitæ, posticis albidis fimbriâ fuscâ.* (Exp. alar. 1 unc. 4 lin.)

Ce. renigera. Steph. Catal. part ii. p. 87. No. 6248.

Head, thorax, and abdomen of an uniform ashy-brown: anterior wings the same, tinged with greenish, and a little varied with yellow, with an obscure black lineola at the base, and an imperfect undated black striga; in the middle is a dark fuscous fascia attenuated on the inner margin, and banded anteriorly and posteriorly by an indistinct black or dusky striga, the latter a little angulated behind the posterior stigma: in this fascia the usual stigmata are placed, the anterior one being minute, sublinear, and margined with black, the posterior kidney-shaped and flavescent: adjoining the second transverse striga is a third stigmatiform mark of a deep black, with the centre rather fuscous: posterior wings whitish, with a dusky or brown border.

Of this remarkably conspicuous and distinct species, I have hitherto seen but three specimens; one in my own cabinet, the other two in that of Mr. Stone: my specimen I obtained from the Marshamian collection, and Mr. Stone's were taken, I believe, near London, many years since;—it does not appear to be noticed by continental writers.

Sp. 2. *Haworthii*. PLATE 25. f. 3.—*Alis anticis roseo-fuscis basi lineolis duabus nigris, postice strigâ dentatâ flavescente, stigmatibus ordinariis ochraceis.* (Exp. alar. 1 unc. 2—4 lin.)

Ap. Haworthii. Curtis, vi. pl. 260.—*Ce. leucographa?* Steph. Catal. part ii. p. 87. No. 6249.

Head and thorax brown, tinged with rosy: anterior wings rosy-brown, with two black lineolæ at the base, the second placed on the inner margin, a pale undulated whitish transverse striga before the middle, and a second behind; beyond the latter is a pale yellowish or whitish fascia, bordered towards the hinder margin with a slightly waved dentated yellowish striga, edged internally with some black triangular spots: the stigmata are cream-coloured or ochraceous, the anterior one with a dusky centre, the posterior with an ashy line; the central nervure is whitish, as are the two which branch off from it at their junction with the posterior stigma; on the hinder margin is an interrupted black line; behind the central nervure is a black hook: posterior wings fuscous, with a central spot, and the margin darker.

Not having an opportunity of consulting Hübner's work at the time that portion of my Catalogue containing a notice of this species was printed, I suspected from Ochsenheimer's specific character, that it might be the *Noctua leucographa* of the first-mentioned author, but having recently obtained the true *No. leucographa*, and having kindly been allowed by my friend J. G. Children, Esq. to examine his copy of Hübner's valuable publication, I could not find the present insect figured therein; and, as it has been lately named after my friend Mr. Haworth, it is with pleasure I retain the appellation, as a testimony of his useful labours, in furnishing us with a knowledge of the indigenous Lepidoptera.

Taken in considerable plenty, in July, near Whittlesea-mere.

Sp. 3. *hibernica*. *Alis anticis rufescente-fuscis fasciâ posticâ strigâque dentatâ pallidioribus, stigmâ anticâ obsoletâ.* (Exp. alar. 1 unc. 3 lin.)

No. hibernica. Haworth MSS.—*Ce. hibernica*. Steph. Catal. part ii. p. 57. No. 6251.

Head and thorax of a reddish-brown; anterior wings the same, without any black lineolæ at the base, with a very obscure whitish transverse undulated striga before the middle, and another somewhat more evident behind the middle; beyond the latter is a whitish fascia, in which is a paler dentated striga, slightly edged interiorly with reddish-brown; the anterior stigma is in general obsolete, the posterior dirty ochraceous, with a dusky centre; on the hinder margin is an interrupted black line; the central nervure is rather pale towards the apex only, and the two which branch from it a little so at the base: posterior wings ashy-fuscous, with a fimbria and central lunule darker.

This differs from the foregoing in the simplicity and uniformity of its colours; the anterior wings not having any of the black markings that form such strong characters in the last described species, and the anterior stigma being in general obsolete.

All the specimens which I have seen of this insect were taken near Dublin. I am indebted to my friend N. A. Vigers, Esq., for the pair which I possess; they were captured, I believe, near Dublin.

Sp. 4. lancea. *Alis anticis cupreo-fuscis, strigis quatuor obsoletissimis pallidioribus, posticis flavescence-cinereis fimbriâ fuscâ.* (Exp. alar. 11—12 lin.)

No. lancea. *Esper?*—Ce. lancea. *Steph. Catal. part ii. p. 87. No. 6250.*

Considerably smaller than either of the foregoing; head, thorax, and abdomen of a pale-reddish fuscous; anterior wings the same, nearly of an uniform tint, with four very obsolete paler strigæ, the first at the base, the second before, and the third behind the middle; the last near the posterior margin, very little curved, but dentate: the anterior stigma is very minute, pale dirty ochreous, the posterior also small, reniform, immaculate; the apex of the central nervure, the two nervures which arise therefrom, and the one towards the inner edge of the wing, rather pale: hinder margin of the wing immaculate: posterior wings yellowish-ash, with a fuscous fimbria.

The nearly uniformly coloured anterior wings, with the scarcely waved posterior striga, and pale hinder wings, exclusively of its small size, are the leading characters of this insect.

Taken in Norfolk many years since on the borders of Ramsey-mere: it has, I believe, been also found near Whittlesea-mere. "Marton Lodge."—*L. Rudd, Esq.*

GENUS CXV.—SCOTOPHILA * *mili*.

Palpi rather distant, porrected obliquely, slender at the base, subclavate, the two basal joints clothed with rather elongate scales, the apical minute, exposed, somewhat acute; the basal joint about two-thirds the length of the second, stout, reniform, the second more slender, rather tumid at the base, the apex attenuated and truncate; terminal subovate, obtuse: *maxillæ* elongate. *Antennæ* long, pubescent beneath, stout, subserrate, and slightly pectinated in the males; slender and simple in the females: *head* small: *eyes* globose, naked: *thorax* subquadrate, not crested: *abdomen* moderate, rather depressed, acute at the tip in the females, with a tuft in the males: *wings* entire, deflexed; the anterior narrow, posterior rather large.

Caterpillar naked: pupa subterranean.

Scotophila has hitherto, by all modern writers, been associated with Achatia, but its characters are evidently too dissimilar to allow of such an union, the palpi being visibly exposed in this genus, and scarcely prominent in Achatia; the proportions of the latter are singularly different, especially the second joint, which is not only totally dissimilar to the same part in Scotophila, but differs considerably from the other Noctuidæ, as more particularly noticed hereafter. The thorax, antennæ, and texture of the wings are also very unlike those of Achatia.

* Σκοτος, tenebræ; φίλος, amicus.

Sp. 1. porphyrea. *Alis anticis purpureis, strigis punctisque albis quibusdam nigro marginatis, posticis cinerascensibus.* (Exp. alar. 10—14 lin.)

No. porphyrea. *Wien. V.*—No. Erica. *Don. x. pl. 360. f. 1.*—Sc. porphyrea. *Steph. Catal. pt. ii. p. 87. No. 6252.*

Head and thorax of a bright rufous-purple, varied with white: anterior wings also bright rufous-purple, a little clouded with black, the costa with a few white spots; at the base are two irregular white, somewhat anastomosing, strigæ, from the outer of which arises an elongate or teliform stigma, having a black margin, between which and the costa is the usual anterior stigma, which is white, round, small, and mostly immaculate: beyond this is the posterior stigma, which is white, with the centre ashy; from a white spot on the costa, placed midway between the stigmata, a white striga arises, which is considerably arcuated, and dentate externally, and bounded interiorly with fuscous; beyond this is another striga of white streaks, and on the hinder margin is an interrupted black line: cilia rufescent: posterior wings cinereous, with an interrupted marginal black streak.

Caterpillar feeds upon heath of various kinds.

Not common: found towards the end of July on the heaths near Birch-wood, and in the New Forest. “Marton Lodge, Yorkshire.”

—*L. Rudd, Esq.*

GENUS CXVI.—ACHATIA, *Hübner.*

Palpi very short, nearly concealed by long hairs, the terminal joint not visible; the two basal joints robust, the first as long again and stouter than the second, slightly curved, second attenuated, the apex truncate, third minute, cylindric, truncate: *maxillæ* elongate. *Antennæ* rather long, slender, and simple in the females, subserrated, and rather robust in the males, pubescent beneath: *head* minute, scarcely visible from above: *eyes* small, naked: *thorax* large, downy, *wings* deflexed during repose; *anterior* entire, obtuse: *abdomen* short, rather stout, pubescent on the sides, and at the apex. Caterpillar naked, smooth: pupa subterranean.

The nearly concealed, minute, and singular palpi of Achatia, with the small head, large pubescent thorax, stout, subserrated antennæ, and short downy abdomen, sufficiently distinguish it from any other genus of Noctuidæ. Like the rest of the early vernal genera, as Orthosia, Eriogaster, Biston, Amphidasis, &c., the thorax, both above and below, is clothed with a dense woolly pubescence.

Sp. 1. piniperda. *Alis anticis ferrugineo flavoque variis, stigmatibus ordinariis confluentibus.* (Exp. alar. 1 unc. 4—6 lin.)

No. piniperda. *Kob.*—Ac. piniperda. *Steph. Catal. part ii. p. 87. No. 6253.*

—Ac. spreta. *Curtis, iii. pl. 117.*

Head and thorax ochraceous, tinted with rosy, the latter more or less spotted with white: anterior wings very variable, ferruginous, varied with yellowish or ochraceous, sometimes ochraceous clouded with rosy-red; at the base is

a pale transverse undulated striga, and a little behind the middle another, placed very obliquely, and crenated exteriorly; beyond this, near the hinder margin, is an undulated obscure ochraceous striga, bordered interiorly with rosy-red: the anterior stigma is round or ovate, white or yellowish, and is connected by a concolorous streak to the posterior one, which is large, placed very obliquely, and in general tinted with rosy-ochraceous within; nervures sometimes ochraceous: abdomen and posterior wings fuscous, the latter a little tinted with rosy: cilia rosy at the base, the apex pale.

Caterpillar bright green, with a dorsal and two lateral lines white, the lower one on each side tinted with ochraceous or ferruginous:—it feeds on the *Pinus sylvestris*, and other firs: is full grown towards the end of June: the imago appears at the end of March.

The mere accident of discovering this beautiful species to inhabit Britain, I believe, fell to me, having beaten a chance specimen out of an old fir tree at Hertford, in the April of 1810, which remained unique for three or four years. In the spring of 1815 my friend J. Scales, Esq. took the insect in considerable plenty near Beachamwell, in Norfolk, flying about the blossoms of the *black* thorn, in the vicinity of some pines, and to him I am indebted for part of my present series; since that period the insect has been taken in the larva state in abundance at Birch-wood, and near Ripley, though happily without creating the havoc, which frequently accompanies its appearance on the continent. “Matlock.”—*Rev. F. W. Hope*. “York, March 2d, on beech trees, rarely.”—*W. C. Hewitson, Esq.*

GENUS CXVII.—*ACTEBIA** *mihi*.

Palpi short, robust, porrected obliquely, densely clothed with compact scales; the terminal joint exposed, subrhombic; the two basal joints nearly of equal length and stoutness, the first curved, the second shuttle-shaped, the terminal slender, elongate-ovate: *maxillæ* elongate. *Antennæ* elongate, slender, pubescent beneath, ciliated on each side in the males: the basal joint large and squamose: *head* small, with a dense frontal crest: *eyes* large, globose, naked: *thorax* slightly crested posteriorly: *abdomen* elongate, somewhat depressed, a little pubescent at the base, slightly carinated in the males, with a small anal tuft; stouter in the females: *wings* deflexed during repose; *anterior* very narrow, linear, entire, glossy; *posterior* ovate-triangular, entire.

Caterpillar naked, smooth: pupa subterranean.

Actebia may be at once distinguished from the preceding genus, with which it is associated by Ochseneimer and Treitschke, by the comparative bulk of its head, and smallness of its thorax, the latter not being pubescent, and very slightly crested; the anterior wings

* *Azeta*, litus; *Bion*, vivo.

are very long and linear, and the palpi are fully developed, and not concealed beneath the pubescence of the head:—the narrowness of its linear anterior wings at once discriminates it from *Trachea*.

Sp. 1. *præcox*. *Alis anticis virescentibus, maculis ordinariis pallidioribus, fasciâ undatâ abbreviatâ posticâ rufâ.* (Exp. alar. 1 unc. 7—8 lin.)

Ph. No. *præcox*. *Linné*.—*Don*. vi. pl. 213.—*Ac. præcox*. *Steph. Catal. part ii. p. 87. No. 6254.*

Head and thorax hoary, the latter tinted with green: anterior wings ashy-green, and slightly clouded, with an obscure pale whitish striga, bordered with dusky or black, before the middle, and another somewhat arcuated behind; stigmata large, pale; anterior with an ashy central cloud; posterior reniform, with an ashy cloud in the centre of each lobe; towards the hinder margin of the wing is an undulated rather broad rufous fascia, which does not extend to the costa; this is followed by a much waved pale striga; on the posterior margin of the wing is an interrupted row of lunate black spots; the posterior wings and abdomen are fuscous-ash: cilia whitish.

Caterpillar griseous, with a dorsal pale line: it feeds on the *Sonchus oleraceus*, *Viola tricolor*, and other plants, and appears to abound in sandy and barren situations near the coast:—the imago appears in the month of June, and again in September.

Till within these few years this beautiful insect was to be seen in the best collections only; it has, however, been taken in considerable plenty in several parts of the country, generally on the coast; Captain Blomer having found it on that of Devonshire, and Mr. Weaver in the north of England.

GENUS CXVIII.—*TRACHEA*, *Ochsenheimer*.

Palpi moderate, the basal joint pubescent, the second densely clothed with compact scales, the terminal minute, exposed, ovate; basal joint stouter and shorter than the second, a little bent; second stoutest at the base, rather attenuated at the apex; terminal one third as long as the second, rather slender, ovate: *maxillæ* elongate. *Antennæ* simple in both sexes, pubescent beneath and ciliated in the males: *head* with a dense frontal crest, produced into a tuft at the base of each antennæ: *eyes* globose, naked: *thorax* stout, quadrate, crested anteriorly and posteriorly: *abdomen* elongate, carinated; and crested on the back in both sexes; male with a small anal tuft: *wings* deflexed during repose, anterior elongate-triangular, the posterior margin faintly denticulated; posterior ovate-triangular. Caterpillar naked, smooth: pupa subterranean.

The elongate-triangular wings of this genus at once distinguish it from *Actebia*, and the quadrate, crested, thorax from *Achatia*; and from *Valeria* the simple antennæ sufficiently remove it: from all the above the greater elongation of the abdomen sufficiently distinguishes it.

Sp. 1. *Atriplicis*. *Alis anticis fusco viridique nebulosis, liturâ mediâ albicante bifidâ.* (Exp. alar. 1 unc. 8—10 lin.)

Ph. No. *Atriplicis*. *Linnæ.*—*Wilkes*, pl. 2. f. 3. Tr. *Atriplicis*. *Steph. Catal.* part ii. p. 87. No. 6255.

Head greenish-ash: thorax the same, with a greenish anterior and lateral streak: anterior wings cinereous with a green tinge, with paler moniliform strigæ more or less bordered with black, two before and one behind the middle, the latter arcuated; besides these is a considerably waved whitish one near the hinder margin, which last has a row of black lunular spots; the ordinary stigmata are luteous or greenish, with paler margins, and between these and the inner margin of the wing is an oblique whitish or ochraceous somewhat linear patch, emarginate on its posterior margin: cilia cinereous, interrupted with greenish: posterior wings fuscous, with a darker margin.

Caterpillar reddish, spotted with white, with a fuscous dorsal line:—it feeds on various kinds of Dock (*Rumex*), on *Atriplex*, *Polygonum*, *Hydropiper*, &c.:—the imago appears towards the end of June and again in September.

This conspicuous insect still continues rare; specimens have been captured near Wisbeach, in Cambridgeshire, and near Cheltenham: I possess three fine examples from the latter place, given to me by Dr. Leach. In *Wilkes's* time the insect was taken occasionally near London, but I have never seen an example which was captured within the metropolitan district.

GENUS CXIX.—*VALERIA*, *Germar*.

Palpi short, very hairy, concealed in the pubescence of the front, the terminal joint alone conspicuous, elongate, linear, truncate; basal joint large, robust, reniform; second rather shorter and more slender, rather attenuated towards the apex, the terminal nearly as long and robust as the second, elongate-ovate, obtuse: *maxillæ* elongate. *Antennæ* stout, bipectinated in both sexes, the pectinations larger, and subclavate in the male: head densely squamous in front: eyes small, globose, naked: thorax robust, subquadrate, slightly crested: abdomen robust, slightly tufted at the apex in the males, obtuse in the females: wings deflexed? during repose; anterior crenulated on the hinder margin, posterior faintly denticulate.

Caterpillar naked, the posterior segment quadridentate: pupa subterranean.

Both sexes in this genus have the antennæ bipectinated, a structure that does not obtain in any other of the indigenous Noctuidæ; the females may therefore be readily known by that character alone, and the males by the union of their deeply bipectinated antennæ, the pectinations being clavate, with their crenated anterior wings, stout slightly crested thorax, inconspicuous very hairy palpi, with the terminal joint exposed, elongate-truncate.

Sp. 1. *oleagina*. *Alis anticis viridibus fusco undatis, stigmâ anticâ fuscâ albocinctâ, posticâ magnâ albâ, maculis duabus fuscis.* (Exp. alar. 1 unc. 8—10 lin.)

Bo. *oleagina*. *Wien. V.*—Ph. *oleagina*. *Sowerby. B. M. i. pl. 37.*—Va. *oleagina*. *Steph. Catal. part ii. p. 88. No. 6256.*

Head and thorax fuscous, sprinkled with green: anterior wings green, with undulated fuscous strigæ, and some white spots on the costa, towards the apex; anterior stigma round, fuscous, with a white margin, posterior large subovate, white, with a fuscous spot at each extremity; cilia fuscous, with green shades, and interrupted with luteous-ash: posterior wings whitish, with an interrupted transverse striga a little behind the middle, and a marginal fimbria, fuscous; the latter with an undulated whitish streak close to the hinder margin: cilia fuscous.

Caterpillar cinereous, spotted with black, with rufous and black dentate striga behind; collar red:—it feeds on the black thorn.

Very rare: specimens have been found in Richmond-park, and one was taken in the pupa state by Mr. Plastead some twenty or thirty years ago in Battersea-fields:—others have occurred near Bristol, and Mr. Donovan, I believe, captured one in South Wales:—it has also been taken in Scotland: my specimens were from the former locality, and I have been fortunate enough to have had nearly a dozen examples at various periods.

GENUS CXX.—MISELIA, *Oechsenheimer*.

Palpi short, porrected obliquely, the two basal joints densely clothed with scales, the terminal exposed and truncate; basal joint above half the length of the second and robust, slightly curved; the second elongate, more slender than the first, sublinear, bent, obliquely truncate at the apex; third short, subovate-truncate: *maxillæ* not very long. *Antennæ* rather long, pubescent beneath, robust, more or less subserrate, and slightly pectinated in the males, simple in the females: *head* with a frontal crest: *eyes* small, slightly pubescent: *thorax* quadrate, large, crested: *wings* a little deflexed when at rest; *anterior* with the hinder margin crenate; *posterior* generally entire: *abdomen* elongate, robust, carinated, sometimes very acute at the apex in the females, tufted at the apex in the males. Caterpillar naked, the penultimate joint gibbous or tuberculated: pupa folliculated.

Miselia is rather an artificial genus; for it is evident that the three last species ill associate with the two first: however I have not attempted to detach them, from want of time to investigate their characters sufficiently; the species have considerable resemblance to those of the following genus; and indeed it is not easy to find conspicuous distinguishing characters in the imago; but there is considerable diversity in the larvæ, those of the present

genus having the penultimate joint gibbous or tuberculated, while it is simple in *Polia*.

Sp. 1. *bimaculosa*. *Alis albido-cinerascentibus; anticis subnebulosis, posticis nigro bimaculatis.* (Exp. alar. 2 unc.)

Ph. No. *bimaculosa*. *Linné*.—*Mi. bimaculosa*. *Curtis*, iv. pl. 177. *Steph. Catal. part ii. p. 88. No. 6257.*

Ashy-white with dusky atoms; thorax with two oblique black lines; anterior wings slightly clouded, with a dentated brown striga towards the base, a little before the middle, a whitish arcuated submoniliform one behind the middle, and an undulated interrupted brownish one, margined interiorly with pale castaneous, near the hinder margin; on the costa are several abbreviated oblique fuscous streaks, and at the base of the wing a sublunate brown spot; the stigmata are large, pale, edged with brown and ferruginous; and between the anterior one and the inner margin of the wing is a third stigmatiform spot coloured like the true stigmata: the hinder margin of the wing is spotted with dusky: posterior wings pale, clouded with fuscous towards the apex, with a large brown spot on the anal angle, and a lunate one in the centre, the margin also brown: cilia cinereous.

Caterpillar griseous, with longitudinal dusky and whitish striæ, each segment with an oblong black spot, in which the stigmata are placed; towards the head is a large brown patch: it feeds on the Elm.

The only indigenous example which I have seen of this insect is contained in the collection at the British Museum, to which it was presented by Dr. Leach: it was captured near Bristol, I believe, in July, 1815.

Sp. 2. *Oxyacanthæ*. *Alis anticis fusco viridi pallidoque variis, lunulâ albâ marginis tenuioris.* (Exp. alar. 1 unc. 7—8 lin.)

Ph. No. *Oxyacanthæ*. *Linné*.—*Don. v. pl. 165.*—*Mi. Oxyacanthæ*. *Steph. Catal. part ii. p. 88. No. 6258.*

Head and thorax cinereous, the latter fuscous at the apex: anterior wings fuscous, prettily varied with pale reddish and green, the latter colour predominating on the inner margin: at the base of the wing is a dusky lineola and a transverse undulated striga, the latter followed by the ordinary stigmata, of which the anterior is large and rounded, the posterior larger and irregularly cordate; behind the latter is an obsolete slender pale striga, which terminates on the inner margin in a white lunule; towards the hinder margin is a pale fascia, in which is a row of rounded fuscous spots; the hinder margin is shining green, delicately edged with an interrupted fuscous line; cilia cinereous, with a row of large fuscous spots: posterior wings fuscous, with the margin darker, and bearing an obscure abbreviated whitish striga.

Var. β . Anterior wings more or less fuscous or dusky-brown, without the green tinge, with a row of pale spots on the posterior margin, and the white lunule on the inner edge.

Some examples are much paler, and others much darker, than in var. *α*, and many intermediate varieties occur.

Caterpillar fuscous, varied with black and white, posteriorly gibbous: it feeds on various plants, especially the white and black thorns: it occurs in June, and the imago at the end of September, and continues to the beginning of November.

Far from an uncommon species, especially in the larva state, but less frequently observed on the wing; probably from the late period of its flight. “Warwick.”—*Rev. W. T. Bree*. “Alderley, Cheshire.”—*Rev. E. Stanley*. “Littleton-copse, in 1828, not uncommon.”—*Rev. G. T. Rudd*.

Sp. 3. Aprilina. *Alis anticis viridibus, maculis variis atris; posticis utrinque punctis trigonis.* (Exp. alar. 1 unc. 7—8 lin.)

Ph. No. Aprilina. *Linné*.—*Mi.* Aprilina. *Steph. Catal. part ii. p. 88. No. 6259.*—*Ph. No.* runica. *Don. x. pl. 354. f. 1.*

Head immaculate green, with a large fascicle of scales at the base of the antennæ: thorax green, with black marks, one on each side at the base of the wings, a triangulated one anteriorly, and two reaching therefrom to the scutellum: anterior wings green a little varied, with several irregular black strigæ margined with white, of which one passing between the stigmata is the broadest and most distinct; towards the hinder margin, the spots of which the striga is composed are arrow-shaped, and on the hinder margin itself is a series of minute similarly shaped marks: stigmata large, white, with the centre green: cilia greenish, spotted with black: abdomen and posterior wings dark fuscous, the latter with a white striga on their hinder margin, and an abbreviated one towards the anal angle: cilia white, spotted with brown.

This beautiful insect varies much; in some examples the black strigæ are rather faint, while in others they are very broad, and become confluent.

Caterpillar variable: cinereous, with darker lines and spots on the back and sides; or cinereous, with whitish dorsal spots and lateral lines: it feeds on various trees, as the oak, lime, beech, apple, &c.: the imago appears in October.

Also very abundant, and rarely found on the wing, but frequently in the larva state; the latter being readily found in the clefts of the bark of their food; in which situations I have taken them at Coombe and Darenth woods, at Dover, Hertford, and near Ripley. “Swinton, Somersetshire.”—*C. H. Spragg, Esq.*, who furnished me with the following singular relation. “About the end of April last (1828), I procured a brood of the larvæ from a stunted oak near Swinton; one specimen of the imago made its appearance every succeeding month, till the beginning of October,

when I let go the remainder, with one exception, to the number of eighteen; on the 25th of that month, the one before alluded to produced a very fine female specimen; and on the same evening, the windows being open, my room was filled with a swarm of moths; on the capture of which, I found them to be the identical eighteen which I had let go, all of them males, and not a single specimen of any other insect amongst them." "York."—*W. C. Hewitson, Esq.* "Epping."—*Mr. H. Doubleday.*

Sp. 4. compta. *Alis anticis fuscis nigro undatis, fuscâ mediâ latâ apice strigâque posticâ albis.* (Exp. alar. 1 unc. 4—6 lin.)

No. compta. *Wien. V.*—*Mi. compta. Steph. Catal. part ii. p. 89. No. 6260.*

Head and thorax brown, varied with white: antennæ luteous: anterior wings fuscous, with black undulated strigæ, and varied with white, with a distinct, oblique, and irregular fascia of that colour in the middle towards the costa, and a rounded somewhat trilobed patch of the same at the apex, from the latter of which a dentated white striga arises and passes to the anal angle; between the stigmata is an oblique brown line and two parallel black ones, forming a character somewhat resembling the letter N; the anterior stigma is pure white, and forms part of the central fascia, the posterior is clouded with fuscous in the centre: posterior wings fuscous, with the base paler.

Var. β . *Steph. Catal. l. c.*—*Ph. No. X-scriptum. Sowerby Brit. M. pl. 55.*—Anterior wings much darker, especially at the apex, the trilobate white spot almost obliterated, the pale dentated posterior striga alone conspicuous; base of the wing nearly as in var. α ; the parallel black lines between the stigmata united in the centre, and forming the letter X, whence the name above employed by Sowerby to designate the very specimen from which this description is drawn up.

Caterpillar grey, with brownish dorsal spots: it feeds on the *Lychnis dioica*: the imago appears in June, and frequents the borders of woods.

Not common, but more abundant in some years than others, though previously to 1818 few cabinets contained more than a solitary specimen: since that period many specimens have been taken at Darenth-wood, where I have also captured it, and near Brighton.

†Sp. 5. albimacula. *Alis anticis olivaceo-fuscis, nigro alboque undatis, stigmati anteriori maculâque adjacente albis.* (Exp. alar. 1 unc. 5 lin.)

No. albimacula. *Bork.*—*Mi. albimacula. Steph. Catal. part ii. p. 89. No. 6261.*

Head and thorax olive-brown, spotted with white: anterior wings olive-brown, with a white spot at the base, and three undulated white strigæ, edged on one side with black, two placed before the middle and one behind: anterior stigma white, posterior whitish, with a dusky centre; near the former is a

subquadrate white spot, and between the latter and the hinder margin is an undated white streak, and on the hinder margin itself is a slender interrupted dusky line: cilia white, spotted with black: posterior wings yellowish-brown, with a dusky fimbria, and two whitish spots towards the inner angle.

This beautiful and conspicuous species is also unique in the British Museum; the specimen in the collection of that establishment having been taken by Mr. Bydder, on a gate near Birchwood, I believe, in June, 1816: a fact which plainly shows the extreme locality, or uncertain appearance, of particular species, as the neighbourhood where it was captured has been long celebrated for the richness of its entomological treasures, and has been for many years most diligently explored.

GENUS CXXI.—POLIA, *Hübner*.

Palpi porrected obliquely, the basal joints densely clothed with elongate scales, the terminal exposed and slightly squamose, basal joint about half the length of the second, a little bent; second slightly attenuated, obliquely truncate at the apex, terminal compressed, ovate, acute: *maxillæ* as long as the antennæ. *Antennæ* simple, pubescent beneath, sometimes slightly produced, with pectinated lobes in the males; in general each joint producing a bristle: *head* clothed with short scales: *eyes* globose, sometimes pubescent: *thorax* stout, slightly crested: *abdomen* rather long, stout, sometimes with tufts on the back, the apex obtuse in the females, with a small tuft in the males: *wings* deflexed during repose; anterior elongate sublanceolate, the hinder margin crenulated, posterior slightly denticulated.

The insects of this genus are amongst the largest of the indigenous Noctuidæ, but the genus, as it at present stands, is evidently most artificial, as may be readily seen by an inspection of the two accompanying figures of *Po. polymita* and *templi*; the former insect resembling the *Miseliæ*, and the latter apparently closely approximating to the first group of *Graphiphora*: the six first species are clearly congeneric; but yet notwithstanding *Po. tincta* has the eyes naked, whereas in the rest they are pubescent: the species after *Po. templi* are very discordant, but as their characters appear to resemble those of the true *Polia* more than those of any other group, I have placed them at the end of this genus: the last species, *Po. Chi*, in its perfect state has considerable affinity to the *Apatelæ*; but its larva is widely different.

Sp. 1. advena. *Alis anticis cinereo-glaucis obsolete strigosis, strigâ posticâ nigro-maculatâ.* (Exp. alar. 1 unc. 10 lin.—2 unc.)

No. advena. *Wien. V.*—Po. advena. *Steph. Catal. part ii. p. 89. No. 6262.*

Head and thorax reddish-ash, the latter with a dusky transverse streak in front: anterior wings ashy-brown, with a slight silvery gloss, and three very obsolete pale strigæ, bordered with a darker hue, the first abbreviated, and considerably waved, at the base, the second rather obliquely placed before the anterior stigma, the third behind the posterior one; and towards the hinder margin is a more conspicuous pale waved one, edged on its anterior margin with angulated fulvescent spots; on the posterior margin itself is a very slender undulated black striga, composed of sublunate streaks: anterior stigma pale, posterior larger, less distinct, with its outer angle whitish: adjoining the second striga is sometimes a fuscous hook; and the costa of the wing is frequently spotted with whitish: posterior wings plain fuscous, with an obscure marginal streak.

Caterpillar feeds on the *Leontodon taraxacum* and *Lactuca sativa*: the imago appears at the end of June, and frequents gardens.

Not very common: taken occasionally at Coombe-wood, and in other places within the metropolitan district: also in Norfolk, Suffolk, and Devonshire. “Epping.”—*Mr. H. Doubleday.*

Sp. 2. nitens. *Alis brunneo argenteoque variis, strigâ posticâ ex punctis angulatis confluentibus.* (Exp. alar. 1 unc. 10 lin.)

No. nitens. *Haworth.*—Po. nitens. *Steph. Catal. part ii. p. 89. No. 6263.*

Of this insect Mr. Haworth says, “I have seen but one specimen of the male, which is closely allied to the former, but smaller, with the antennæ setaceous, naked, and not pectinated, and hairy, with the claviform (or third) stigma larger: the anterior wings browner, and more silvery behind, the reniform stigma half edged with pure white towards the apex; in other respects similar to the last, but the posterior stigma without, whiter.”

This insect I should consider to be a mere variety of the foregoing, differing in being rather smaller, and of a brighter hue, were it not from the remarkable discrepancy in the structure of the antennæ: it has been taken in Norfolk, and near London.

Sp. 3. bimaculosa. *Alis anticis albido cinereoque nebulosis strigâ posticâ denticulatâ nigrâ, stigmatibus magnis subocellaribus.* (Exp. alar. 1 unc. 10 lin.—2 unc. 2 lin.)

No. bimaculosa. *Esper.*—Po. bimaculosa. *Steph. Catal. part ii. p. 89. No. 6264.*
—Ph. No. grandis. *Don. x. pl. 341. f. 1.*

Head and thorax cinereous or hoary, the latter with black transverse and longitudinal streaks, and slightly crested: anterior wings clouded with whitish and cinereous, with indistinct black waved strigæ, and slightly tinged with fulvescent; towards the hinder margin is a distinct waved and dentated black

striga, and on the margin itself a row of distinct black dots: the stigmata are very large, pale, clouded, more or less, with cinereous in the centre: and between the anterior one and the inner margin of the wing is a third, indicated by a black margin, but very variable in size and colour: cilia cinereous, with brown clouds: posterior wings fuscous-ash, with an obscure striga behind the middle, and the hinder margin dusky. Female more obscure than the male.

Caterpillar fuscous, with a waved pale reddish streak on the sides, and two pale lines:—it feeds on the *Verbascum Thapsus*:—the imago is found towards the end of June.

Not unfrequently captured near Darenth and Birch woods, and occasionally at Coombe-wood, and in Epping Forest, resting upon the trunks of trees, as well as in other parts of the metropolitan district. “Alderley.”—*Rev. E. Stanley*. “Epping.”—*Mr. H. Doubleday*. “Carlisle.”—*T. C. Heysham, Esq.*

Sp. 4. *occulta*. *Alis anticis fusco cinereoque nebulosis, posticis fuscis, ciliis albis.*
(Exp. alar. 2 unc. 2 lin.)

Ph. No. *occulta*. *Linné*.—Po. *occulta*. *Curtis*, vi. pl. 248.—*Steph. Catal. part ii* p. 89. No. 6265.

Head and thorax dark cinereous, with brown spots and clouds: anterior wings clouded with hoary and fuscous, with a black line at the base, intersected by an obsolete waved pale striga; a second, and more distinct pale striga, considerably waved, before the middle, to which the anterior stigma, which is pale and heart-shaped, is united, and between the latter and the inner margin is an elongate-ovate stigmatiform spot, also attached to the striga, the posterior stigma is ear-shaped, clouded in the middle, with the margin pale, beyond it is a whitish undated striga, between which and the hinder margin is a fourth irregularly waved one, marked on its anterior margin with elongate dusky streaks: on the hinder margin is a row of triangular black spots: posterior wings fuscous, with the margin and a central lunule darker: cilia white.

Caterpillar black on the back, the sides fuscous, with ochraceous lines:—it feeds on the dandelion and lettuce:—the imago appears in July.

An insect *resembling* this species is in the collection at the British Museum, which, for the interests of science, it is necessary to state, was captured in Nova Scotia, *but not* in Britain.

This conspicuous and large insect is still to be found in very few cabinets: the first specimens which came to my knowledge were taken by Mr. Hatchett in Epping Forest, many years since, and others have occurred in the same place and near Dover. “Alderley, Cheshire.”—*Rev. E. Stanley*, who kindly presented me with the only specimen he ever captured.

Sp. 5. *tincta*. *Alis anticis hepaticis cinereo-argenteis nebulosis, strigis variis*

undulatis, maculis tribus ad strigam externam adjacentibus nigris. (Exp. alar. 1 unc. 10 lin.—2 unc.)

No. tincta. *Bork.*—Po. tincta. *Steph. Catal. part ii. p. 89. No. 6266.*

Head hoary: thorax cinereous, with a lateral and anterior black streak, the crest rufescent: anterior wings pale reddish-brown, clouded with silvery-ash, with obsolete waved pale and brown strigæ: anterior stigma ovate, pale silvery-ash, with a black margin, posterior reniform, clouded in the centre with cinereous and brown, and also edged with black: between the anterior stigma and the inner margin of the wing is a black hook: and towards the hinder margin of the wing is an undated pale striga, producing a blackish spot on the inside, at its origin on the costa; a darker one towards the middle, and a larger, and still deeper coloured one, at the anal angle; the hinder margin of the wing itself has a crenated black line: cilia reddish-ash, with the margin paler: posterior wings fuscous, with a central spot, and the margin darker: cilia whitish.

Caterpillar gray, with fine black stripes on the back, and pale whitish or ochraceous lateral ones, with a reddish undulated streak above the latter:—it feeds on the *Ononis spinosa*, &c., and the imago is produced towards the end of June.

I have two or three times captured this beautiful species in Darenth-wood, by accidentally beating it out of the branches of the lofty oaks, situated near the south-western skirts of the wood: specimens have been found at Coombe-wood, and in other parts in the vicinity.

Sp. 6. *Herbida.* PLATE 27. f. 3.—*Alis anticis fusco viridique variis, stigmatibus tribus margine nigris.* (Exp. alar. 1 unc. 10 lin.—2 unc.)

No. *Herbida.* *Wien. V.*—Po. *Herbida.* *Steph. Catal. part ii. p. 90. No. 6267.*

Head and thorax green, with fuscous shades: anterior wings varied with green and fuscous, with an abbreviated white striga at the base, edged with black anteriorly, a second before the middle, becoming greenish towards the inner margin, and bordered exteriorly with black; then an obscure pale geminated one behind the middle, the space between, in which the stigmata are placed, being darker than the rest of the wing; the ordinary stigmata are large and margined with black, the third is rather small, and the margin is alone conspicuous: towards the hinder margin of the wing is an undulated pale striga, usually with two or three deep black trigonate spots towards the costa; the margin itself with a row of lunular spots, which are frequently united; cilia greenish with fuscous spots: posterior wings fuscous, with the margin darker, the cilia whitish: eyes naked.

Caterpillar green, with black spots on the back, the stigmata white, the head brown:—it feeds on the *Cochlearia Armoracia*:—the imago appears in June.

I have taken this on the same trees as the last in Darenth-wood,



but the insect is far from common : it has been captured in Norfolk, and at Lanark in Scotland.

† Sp. 7. Polymita? PLATE 26. f. 2.—*Alis anticis cinereis, stigis albo nigroque undatis, fasciâ mediâ virescente-fuscâ, in quâ stigmata ordinaria.* (Exp. alar. 1 unc. 9 lin.)

Ph. No. Polymita. Linné?—Po. Polymita. Steph. Catal. part ii. p. 90. No. 6269.

Head and thorax cinereous with a greenish tinge, the latter clouded with fuscous and undated with black: anterior wings with the base and apex cinerascens, the centre greenish-brown, forming a fascia of that colour, in which the stigmata are placed; this fascia is bounded anteriorly by an oblique crenated white striga margined externally with black, and exteriorly by a strongly dentate or angulated one edged interiorly with black; towards the hinder margin is a waved fuscous cloud, and the margin itself is terminated by a crenate black line: cilia fuscous: anterior stigma subovate, cinereous with a pale margin; posterior rather irregular, clouded with cinereous: posterior wings dusky, with an obsolete crenated striga behind the middle, and a whitish cloud at the inner angle: cilia whitish, with a fuscous streak near the base.

The only specimen I have seen of this insect is in the collection of Mr. Vigors, who obtained it from that of Mr. Wilkin:—whether it be truly the Ph. No. Polymita of Linné I am not positive, but it seems to agree with his concise definition of that insect, although not exactly with the figure in Engramelle, referred to by Treitschke.

† Sp. 8. templi. PLATE 26. f. 1.—*Alis anticis obscure virescentibus, strigis undatis maculisque ordinariis flavescentibus.* (Exp. alar. 1 unc. 9 lin.)

No. templi. Thunberg.—Po. templi. Steph. Catal. part ii. p. 90. No. 6268.

Head and thorax obscure greenish-ash: anterior wings the same, with three or four obsolete waved strigæ and the ordinary stigmata, which are very small, the anterior least and rounded, the posterior reniform, the striga towards the hinder margin considerably waved; cilia greenish-ash, with fuscous spots: posterior wings yellowish-ash, with a slightly waved fuscous striga behind the middle, and an obsolete one near the hinder margin, the margin itself paler than the rest of the wing, with an interrupted dusky line: cilia cinereous: eyes naked.

I have seen but three specimens of this remarkable insect, which unquestionably deviates considerably from the rest of the genus, though it bears some little affinity to the following species, but as I do not possess it, I am unable to give the necessary examination to ascertain its place: the specimen, whence the accompanying figure was taken, was found at Liverpool in the autumn, about ten years since, and is in the collection of Mr. Stone; a second was taken in

Devonshire, I believe by Captain Blomer, about six years since, and a third at Birmingham in October, 1825.

Sp. 9. *flavocincta*. *Alis anticis fusco cinereoque variis, atomis aurantiis adpersis.*
(Exp. alar. 1 unc. 8—10 lin.)

No. *flavocincta*. *Wien. V.—Don. x. pl. 334.—Po. flavocincta. Steph. Catal. part ii. p. 90. No. 6270.*

Head and thorax cinereous varied with fuscous, and a few fulvous atoms: anterior wings hoary, obscurely fasciated with fuscous, and strigulated with white and dusky, with irregular fulvous or orange-coloured spots: the stigmata are large, rather indistinct and obscure; near the posterior margin is a faint striga of fulvous spots, each with a fuscous spot attached anteriorly: posterior wings whitish-ash, with a crenated fuscous striga behind the middle, and a cinerascens marginal fimbria: eyes naked. Some specimens are much darker than others, and are more strigulated with dusky.

Caterpillar green, with a pale dorsal and lateral line: it feeds on various plants, such as the dock, currant, gooseberry, lettuce, willow, bird-cherry, &c.:—the imago appears in the autumn, towards the end of September, and frequents gardens and hedges.

For several successive years, I captured this insect in a garden at Hertford, but for these last eight or ten years I have not seen a single living example: the insect is, however, not very abundant. "York, in a fir plantation."—*W. C. Hewitson, Esq.* "Epping."
—*Mr. H. Doubleday.*

Sp. 10. *dysodea*. *Alis anticis cinereis atomis undique fulvo-aurantiis, fasciâ mediâ nigricante strigisque duabus lunulatis.* (Exp. alar. 1 unc. 4—5 lin.)

No. *dysodea*. *Wien. V.—Po. dysodea. Steph. Catal. part ii. p. 90. No. 6271.*
—*Ranunculus* Moth. *Wilkes, pl. 14. fig. inf.*

Head and thorax cinereous, varied with fulvous and rosey: anterior wings cinereous, with a white striga at the base, edged anteriorly with fulvous; a second before the middle, with one or more fulvous spots; a third composed of white lunular spots, each margined anteriorly with dusky, behind the middle, and considerably arcuated, the colour between these two strigæ being somewhat fuscous, and bearing the ordinary stigmata, which are cinereous, and more or less bounded and spotted with fulvous: near the hinder margin is a series of fulvous spots: cilia tessellated with fulvous and fuscous: posterior wings cinereous, with a fuscous border.

Caterpillar dark-green, with dusky spots on the back, and a yellowish lateral line:—it feeds on lettuce, wormwood, &c.:—the imago comes forth towards the middle of July, and affects gardens and hedges.

Not very uncommon, and certainly more abundant than the foregoing species: I have taken many specimens at Darenth-wood, and at Hertford and Ripley. "Epping."—*Mr. H. Doubleday.*

Sp. 11. *serena*. *Alis anticis cinereis, fasciâ latâ fuscâ in medio strigis albican-
tibus utroque adnatâ.* (Exp. alar. 1 unc. 2—4 lin.)

No. *serena*. *Wien. V.*—Po. *serena*. *Steph. Catal. part ii. p. 90. No. 6272.*—
Ph. No. Par. *Don. x. pl. 338. f. 3.*

Head and thorax white, with delicate fuscous or black waves: anterior wings snow-white at the base and apex, the centre with a broad fuscous fascia, which is bounded on each side with a whitish or subfulvous striga, and marked with undated black strigæ within: the stigmata are cinereous, with white margins: on the white ground at the base is a geminated black costal striga, and on that of the apex some obsolete fuscous clouds, with a sub-triangular fuscous spot on the costa: cilia pale cinereous, spotted with white: posterior wings cinereous, with a central spot and the margin fuscous: cilia white.

Very variable in colour: in some examples the central fascia is nearly ochraceous: in others very deep fuscous, and of all intermediate shades; the white is sometimes sullied, and much clouded towards the hinder margin of the wing.

Caterpillar feeds on the *Hieracium umbellatum*, *Leontodon hispidum*, *Sonchus palustris*, &c.:—the imago is produced towards the end of June.

Not very common, but rather more so in some years than others: in June, 1819, in passing a pollard and rotten ash in the lane leading from Dartford to the common, in company with the late Mr. Blunt, we found the trunk literally covered with this insect, there being several dozens reposing thereon; and from them I selected the series which I at present possess.

Sp. 12. *seladonia*. *Alis anticis viridi cinereoque variis, strigis nigris obsoletis, nebulisque atris sparsis, strigâ pallidâ versus marginem posticum.* (Exp. alar. 1 unc. 4—6 lin.)

No. *seladonia*. *Haworth.*—Po.? *seladonia*. *Steph. Catal. part ii. p. 91. No. 6273.*

Head greenish-brown, with a rosy tinge: thorax green, with dusky and white atoms: anterior wings greenish, varied with cinereous and rufous, with several oblique abbreviated black streaks on the costa, and obscure strigæ on the disc: the ordinary stigmata rather pale-green, with a similar coloured spot nearly adjoining the anterior one, towards the inner margin; near the hinder margin of the wing, which is sometimes rather pale, is a pale undated striga, producing some irregular trigonate black spots on its outer edge: on the margin of the wing is a series of minute trigonate black spots: cilia greenish, spotted with fuscous: posterior wings cinereous, with a fuscous lunule: the centre and the margin fuscous, the latter with a pale striga, sometimes clouded with fuscous.

Extremely variable: in some examples the anterior wings are nearly of an uniform pale-green, with a few black strigæ; in others, they are of a dark

fuscous, tinted with green and red: and occasionally they have the inner margin, the stigmata, and a fascia at the apex nearly pure white, and a striga of the same on the hinder margin, in which is a row of black lunular spots: this last variety is very rare, and appears to resemble the No. Protea of Hübner: an insect which Ochsenheimer places in his artificial genus Hadena.

Caterpillar dirty-green, with various dusky and paler stripes and dusky clouds: it feeds on the oak: the imago comes forth at the end of September.

Not uncommon: occasionally in the greatest profusion at Darent-wood in the larva state: also found at Birch-wood, Coombe, Hertford, Ripley, &c.; and throughout the metropolitan district. "Epping."—*Mr. H. Doubleday*. "Netley."—*Rev. F. W. Hope*.

Sp. 13. Chi. *Alis canis, anticis cinereo-subnebulosis, χ nigro notatis*. (Exp. alar. 1 unc. 5—6 lin.)

Ph. No. Chi. *Linné*.—*Don*. xii. pl. 406.—*Po?* Chi. *Steph. Catal. part ii. p. 91. No. 6274*.

Head, thorax, and abdomen hoary, speckled with minute cinereous dots: anterior wings hoary, clouded irregularly with cinereous and fuscous; with the usual stigmata hoary: behind the posterior one an obsolete whitish striga, composed of lunular spots; and towards the hinder margin another striga of pale ochraceous spots, having a few small black trigonate ones on its inner edge; between the stigmata and the inner margin of the wing is a black character, resembling the letter χ : posterior wings of the male white, with the nervures dusky, and margin fuscous; of the female fuscous, with a dark margin.

There are considerable varieties in colour in this insect, some examples being much darker and more strongly marked than others.

Caterpillar green, with two white lateral lines: it feeds on the *Aquilegia vulgaris*, *Sonchi oleraceus* and *arvensis*, *Arctium Lappæ*, *Lactuca sativa*, &c.:—the imago appears in July, and frequents barren districts.

Not hitherto found near London, but in plenty in all the northern counties, especially Derbyshire, Yorkshire, Cumberland, &c., also on the mountains of North Wales; concealing itself in the stone walls which are so common in those districts. "Allesley."—*Rev. W. T. Bree*. "On Stonehenge."—*Rev. G. T. Rudd*. "Newcastle, common."—*W. C. Hewitson, Esq.*

GENUS CXXII.—APATELA, *Hübner*.

Palpi rather short, porrected, clothed with hair-like scales, the terminal joint slightly exposed; basal joint about half the length of the second, rather stouter

and reniform; the second elongate, a little acuminate at the apex; terminal elongate, sublinear, obtuse: *maxillæ* moderate. *Antennæ* rather short, robust, simple in both sexes: *head* with a dense somewhat woolly frontal tuft: *eyes* small, globose, naked: *thorax* not crested, somewhat woolly: *body* elongate, carinated on the back, with a small tuft at the apex in both sexes: *wings* entire, deflexed during repose; *anterior* elongate-triangular, the posterior margin a little rounded, acute at the apex; *stigmata* indistinct. Larva very hairy, and sometimes with dense fascicles on the back: pupa folliculated.

Apatela Leporina, which forms the type of Hübner's Apatelæ, and its ally A. Bradyporina, differ so considerably in form from the Acronyctæ of Ochsenheimer, and their larvæ are so remarkably dissimilar, that I long since separated them as a genus, to which Noctua Aceris (and several North American species) may be added: the larvæ of all the species are clothed with extremely long hairs, which are so compactly placed in the typical species as almost to conceal their form; and several have, in addition, one or more dense tufts on the back, as in the Dasychiræ.

Sp. 1. Leporina. *Alis anticis albis punctis lineolisque flexis nigris, posticis niveis immaculatis.* (Exp. alar. 1 unc. 5—8 lin.)

Ph. No. Leporina. *Linné.*—*Don.* x. pl. 327. f. 1.—Ap. Leporina. *Steph. Catal.* part ii. p. 91. No. 6275.

Head, thorax, and anterior wings white, the latter with a slightly curved black lineola at the base, arising from a similar-coloured streak, which has its origin at the apex of the palpi, and passes through the eyes and along the sides of the thorax; behind the basal lineola are two black spots placed transversely, the largest on the costa, the other opposite to the apex of the lineola on the disc; behind the middle on the costa is a more or less flexuous black streak, with a smaller one opposed to it near the inner margin; beyond this is a faint, somewhat interrupted, and frequently nearly obliterated, black striga; and on the hinder margin is a row of black spots: posterior wings shining immaculate snowy-white; the nervures sometimes a little fuscous.

The black markings are larger and more distinct in some specimens than others, and the row of spots on the posterior margin is sometimes continued to the apex of the cilia.

Caterpillar clothed with long yellow, or yellowish-white hairs, with several black tufts down the back: it feeds on the alder, willow, poplar, birch, elm, &c., in the autumn; and the imago appears about the middle of May; and occasionally a second brood is produced in August.

Somewhat rare: the larva is occasionally beaten out of the birches in Coombe-wood; and I have captured it in Darent-wood; it likewise occurs at Birch-wood. "Packington."—*Rev. W. T. Bree.*

Sp. 2. *Bradyporina*. PLATE 26. f. 3. *Alis anticis albidis fusco irroratis punctis lineolisque atris, posticis albis margine nigro punctato.* (Exp. alar. 1 unc. 5—6 lin.)

Ac. *Bradyporina*. *Ochsenheimer*.—Ap. *Bradyporina*. *Steph. Catal. part ii. p. 91. No. 6276.*

Head and thorax dirty-white or cinereous: anterior wings whitish, thickly irrorated throughout with minute black atoms, with a black lineola at the base, and other markings, as in the last; but the posterior dentate striga very distinct, and nearly continuous from the costa, where it arises from a black spot, and bends suddenly and considerably outwards, to the inner margin; the hinder margin is very strongly spotted with black: posterior wings white, with a row of dusky and black spots on the hinder margin: abdomen cinereous.

Caterpillar grass-green, clothed with long decumbent white hairs: it feeds on the *Prunus domestica*: the imago appears in the beginning of June.

Far more rare than the last: it has been found at Birch and Darent-woods; and in other places in their vicinity.

Sp. 3. *Aceris*. *Alis anticis cinereo-canis aut fuscis, lineolis undatis annuloque nigris, posticis albidis fusco-venosis.* (Exp. alar. 1 unc. 6—8 lin.)

Ph. No. *Aceris*. *Linné*.—*Don. x. pl. 330.*—Ap. *Aceris*. *Steph. Catal. part ii. p. 91. No. 6277.*

Head, thorax, and abdomen hoary, thickly sprinkled with minute fuscous dots; palpi laterally dusky: anterior wings hoary-ash, with a trifurcate black lineola at the base, and several dusky obsolete waved strigæ; anterior stigma formed by a black ring, posterior more or less obscure; behind the latter is an arcuated and considerably dentated whitish striga, bordered on the outside by a fuscous band; hinder margin pale hoary-ash, with a row of black spots on the edge itself, each spot continued to the apex of the cilia, which are cinerous in the intervals: posterior wings white or whitish, with the nervures dusky at the apex, and sometimes a pale cinereous interrupted striga behind the middle; cilia cinereous, interrupted with fuscous.

Var. β . With the thorax, abdomen, and anterior wings dark fuscous, the latter marked as in var. α : posterior wings sometimes white, at others cinereous, with darker nervures and transverse striga.

Caterpillar thickly clothed with long yellow hairs, with five red and yellow tufts on the back, and a row of white catenated spots edged with black:—it feeds on the horse-chestnut, maple (*Acer*), oak, ash, &c. in the autumn:—the imago appears towards the end of June.

Not uncommon; especially where the horse-chestnut abounds.

Var. β . I have reared from the same batch of eggs which has produced the ordinary state of the insect; it is therefore satisfactorily proved to be merely a variety. “Epping.”—*Mr. H. Doubleday*. “Bottisham.”—*Rev. L. Jenyns*. “Cambridge.”—*C. C. Babington, Esq.*

GENUS CXXIII.—ACRONYCTA, *Ochsenheimer*.

Palpi not very short, porrected obliquely, rather slender, covered with short scales, the terminal joint distinct; basal joint reniform, half the length of the second, and stouter; the second elongate, somewhat linear, and truncate at the apex; terminal short, ovate: *maxillæ* moderate. *Antennæ* rather slender, slightly pubescent beneath in the males, simple in the females: *head* small, with a short frontal crest: *eyes* small, globose, naked: *thorax* quadrate, not crested, clothed with elongate scales: *abdomen* scarcely elongate, stout, slightly carinated, with a small tuft at the apex and elongate lateral scales in the males; sometimes crested down the back; *wings* entire, deflexed during repose; *anterior* rounded at the apex, obtuse; *stigmata* in general distinct. Larva slightly diversified, clothed with elongate fascicles of hair, and sometimes with an elevated dorsal prominence: pupa folliculated.

By restricting *Acronycta* to the following insects, a more natural genus does not occur throughout the *Noctuidæ*, notwithstanding several of the species differ considerably from the type, and there is much diversity in the larvæ:—all the latter, however, are furnished with distinct, rather short, fascicles of hair, and some of them have, in addition, one or more dorsal protuberances: but that of *A. Alni* is less pilose, and the hairs are capitate.

Sp. 1. *megacephala*. *Alis anticis cinereis, nigro-undatis, areâ posticâ albidâ, posticis albis, fusco-venosis, margine fuscescente*. (Exp. alar. 1 unc. 7—8 lin.)
No. *megacephala*. *Wien. V.*—*Ac. megacephala*. *Steph. Catal. part ii. p. 92.*
No. 6278.

Head and thorax gray, mixed with fine black dots: anterior wings cinereous, with several more or less obsolete dusky or black undated strigæ, of which a geminated one before the stigmata, and a dentated and bent one behind, are most evident, the arch of the latter forming the outline of a large pale patch in place of the posterior stigma; the anterior stigma pale, with a black circle, and sometimes a dusky centre; near the hinder margin is an obscure undulated pale striga; the margin itself rather pale, varied with cinereous, with a faint row of black dots: cilia cinereous, interrupted with dusky: posterior wings white, with dusky nervures and border; the hinder margin with an interrupted dusky line; cilia white, with dusky spots.

In some examples, the pale patch near the posterior margin is obliterated: others are considerably suffused with dusky throughout; and some have a distinct pale striga, composed of lunular spots, behind the place of the posterior stigma.

Caterpillar with the head large, the back dusky, with yellowish lunular spots on the sides, and a large subquadrate sulphureous spot, edged with black, on the eleventh segment above:—it feeds on the poplar and on willows:—the imago is

said to appear in May or the beginning of June, and in the autumn; I have frequently taken it in July; and on the 2d ult. I found a specimen, in the act of drying its wings, on a poplar at Kentish-town.

Not very uncommon: I have frequently taken the insect at Hertford and at Darenth. “Bottisham.”—*Rev. L. Jenyns*.

Sp. 2. *Ligustri*. *Alis anticis fusco virescentique variis nigro subundatis, maculâ magnâ posticâ albidâ; posticis fuscis.* (Exp. alar. 1 unc. 5—6 lin.)

No. *Ligustri*. *Wien. V.*—Ac. *Ligustri*. *Steph. Catal. part ii. p. 92. No. 6279.*

Head and thorax cinereous, varied with fuscous: anterior wings varied with greenish and brown or dusky, with a geminated waved black striga before the stigmata, and several rather less distinct between them; the anterior stigma is round, brownish, with a white margin, and placed in an obscure rather pale transverse fascia; beyond the posterior stigma, and forming part of its hinder margin, is a large ashy-white spot, having a sort of a catenated border, the exterior portion of which is formed of the arch of the ordinary third striga; adjoining to which on the inner margin, near the anal angle, is a small pale lunule; the hinder margin is cinereous, with fuscous spots; the cilia ashy, interrupted with brown: posterior wings fuscous.

Var. β . With the anterior wings almost entirely suffused with fuscous; the pale margins being nearly obliterated: posterior deep fuscous.

Caterpillar pale yellowish-green, with three fine yellowish-white longitudinal stripes and slender black hairs:—it feeds on the privet (*Ligustrum vulgare*):—the imago appears at the end of June.

Not common: I have taken the insect at Darenth-wood, and have seen several from the neighbourhoods of Croydon and Brighton; also from Devonshire, where it is found near Plymouth and near Ashburton. “Epping.”—*Mr. H. Doubleday*. “Matlock.”—*Rev. F. W. Hope*.

Sp. 3. *Alni*. *Alis anticis fusco-nigris, maculâ magnâ basali apiceque cinereis, atro strigosis, posticis albis, margine fusco.* (Exp. alar. 1 unc. 6—7 lin.)

Ph. No. *Alni*. *Linné.*—*Don. x. pl. 327. f. 2.*—Ac. *Alni*. *Steph. Catal. part ii. p. 92. No. 6280.*

Head and thorax hoary, with a black lateral line: anterior wings with a large subovate cinereous patch at the base, extending beyond the anterior stigma; and a larger blotch of similar hue, occupying the apex from the posterior stigma, and stretching obliquely across nearly to the anal angle, which latter is also cinereous; the rest of the wing is suffused with deep fuscous-black, with a broad intensely black line at the base, and another towards the anal angle; a dentate black striga, margined anteriorly with hoary, passes through the cinereous apical patch, and an obscure undulated pale one near the hinder margin, interrupted by a longitudinal slender black streak towards the apex: cilia hoary, interrupted with fuscous: posterior wings white, with a pale

fuscous fimbria, and some of the nervures of that colour towards the apex : cilia irregularly interrupted with fuscous.

Caterpillar black, with yellow dorsal spots, and elongate capitate hairs:—it feeds on the alder, oak, birch, willow, poplar, lime, &c. ; and the imago is found towards the beginning of June.

Rare, but widely dispersed; specimens having been taken in Norfolk, Huntingdonshire, Dorsetshire, the New Forest, Devonshire, &c. “Collingbourne-wood, May 29, 1828.”—*Rev. G. T. Rudd*. “Allesley and Coleshill.”—*Rev. W. T. Bree*.

†Sp. 4. *strigosa*. *Alis anticis fusco cinereoque variis, lineolis tribus atris ante marginem interiorem*. (Exp. alar. 1 unc. 3? lin.)

No. *strigosa*. *Wien. V.*—Ac. *strigosa*. *Steph. Catal. part ii. p. 92. No. 6281.*

Head and thorax cinereous sprinkled with fuscous, with a slender black lateral line: anterior wings whitish-gray mixed with dusky-brown, with a pale striga before the middle, and an arcuated one behind, and pale stigmata, the anterior of which is bordered with black, and the latter partially so; the inner edge of the wing is fuscous, with three longitudinal black streaks: on the hinder margin is a slender black line; and the cilia are white, interrupted with dusky: posterior wings grayish-ash, with a transverse striga beyond the middle, and a narrow marginal line.

Caterpillar yellowish-green, with an irregular broad, yellowish-brown, dorsal line, sprinkled with black; head reddish:—it feeds on the black thorn and mountain-ash.

Mr. Haworth possesses a single specimen of this insect, which, I believe, was captured in Norfolk:—I have not seen it in any other collection.

Sp. 5. *Psi*. *Alis anticis cinereo-fuscis, characteribus Psi nigris, posticis fusciscentibus, fimbriâ saturatiore*. (Exp. alar. 1 unc. 6—7 lin.)

Ph. No. *Psi*. *Linné.*—*Don. iv. pl. 133.*—Ac. *Psi*. *Steph. Catal. part ii. p. 92. No. 6282.*

Head, thorax, and abdomen ashy-brown, the sides of the two former with a black line; anterior wings also ashy-brown, with a deep black elongate subramose line at the base, and another towards the anal angle, resembling the letter ψ ; on the costa are some abbreviated black streaks, and between the stigmata a black signature, somewhat resembling the letter x , but sometimes indistinct; near the hinder margin is an irregular dentate black striga, with a faint black ψ towards the apex; the anterior stigma is round and margined with black, but the posterior is nearly obliterated; cilia fuscous-ash at the base, white at the apex, and irregularly interrupted with dusky: posterior wings more or less fuscous, with the nervures at the apex and the hinder margin darker.

Some examples are much brighter than others, and considerably resemble the next species; but they are usually of a smaller size than that species.

Caterpillar black, with a broad yellow dorsal line, and transverse red streaks on the sides; the fifth segment with an elongate black conical protuberance: it feeds on the lime, alder, poplar, beech, &c.:—the imago is found towards the end of June.

One of the most abundant of the British Noctuidæ, frequenting pales, walls, and trunks, especially in the vicinity of woods and shrubby places. “Epping.”—*Mr. H. Doubleday*. “Common at Kimpton.”—*Rev. G. T. Rudd*. “York and Newcastle.”—*W. C. Hewitson, Esq.*

Sp. 6. tridens. *Alis anticis cinereo-canis, characteribus Psi nigris, posticis albidis fimbriâ pallidâ cinerascente.* (Exp. alar. 1 unc. 6—8 lin.)

No. tridens. *Wien. V.*—Ac. tridens. *Steph. Catal. part ii. p. 92. No. 6283.*

Extremely similar to the foregoing: of a pale hoary-ash, with a black lateral line on the head and thorax; anterior wings also hoary-ash, with a stout black trifurcate lineola at the base, an oblique waved black striga before the middle, and an arcuated dentate one near the hinder margin, bearing a faint black ψ near the apex, and a stronger one at the anal angle; on the costa are several abbreviated oblique dusky streaks, of which the one between the stigmata is longest, and is sometimes prolonged by a fuscous cloud towards the centre of the wing; the anterior stigma is bordered with black, excepting a small portion towards the base of the costa; and at the anterior edge of the posterior one is a black semicircle, through which a black streak from the anterior stigma passes somewhat obliquely; cilia hoary, interrupted with slender fuscous streaks: posterior wings whitish, with a pale ashy margin, and sometimes a faint transverse dusky striga behind the middle; cilia pale, spotted with fuscous.

In some specimens the posterior wings are suffused with fuscous; and the anterior ones vary much in colour, as well as in the strength and intensity of their markings.

Caterpillar black, with a narrow yellow dorsal line, and red lateral one, the sides with some yellowish marks, and the fifth segment spotted with white, with a conical dorsal protuberance: it feeds on the plum-tree, sloe, willow, white thorn, &c.: the imago appears in June.

Not uncommon in woods and woody places, upon palings, trunks, &c., throughout the metropolitan district, and in other parts. “Epping.”—*Mr. H. Doubleday*.

‡ Sp. 7. cuspis. “*Alis anticis cinereis, luteo mixtis, characteribus psiformibus atris.*”—*Ochs.* (Exp. alar. 1 unc.—8 lin.)

No. cuspis. *Hübner?*—Ac. cuspis? *Steph. Catal. part ii. p. 92. No. 6284.*

Very similar to the foregoing, but rather larger: cinereous, with a black lateral

thoracic line; anterior wings grayish-white, a little tinted with luteous, with a strongly ramose black lineola at the base, and a powerful undated black posterior striga, in which are two dark ψ -like marks; the stigmata are nearly as in the last, and the cilia whitish-ash, spotted with black: posterior wings whitish, with a dusky central lunule, transverse striga behind the middle, and posterior fimbria.

There is an insect in Mr. Hatchett's collection which appears to agree with the above: it was taken near Dulwich; but as several years have elapsed since I saw the specimen in question, it is probable that I may be mistaken in the identity of the species. If it be not this species, it is a most extraordinary variety of the preceding.

Sp. 8. *auricoma*. *Alis cinereis, antice cano nigroque nebulosis, strigâ posticâ dentatâ nigrâ, ad angulum ani caractere psiformi.* (Exp. alar. 1 unc. 5—7 lin.)

No. *auricoma*. *Wien. V.*—*Ac. auricoma*. *Steph. Catal. part ii. p. 92. No. 6285.*

Head and thorax cinereous, the latter whitish on the sides, with a black margin; anterior wings clouded with hoary and cinereous, or black; with a dentate black line at the base, then a geminated waved striga, and towards the hinder margin an arcuated and considerably dentate one, having, near its termination at the anal angle, a black oblique streak, which, with the curved portion of the striga, forms the letter ψ : the hinder margin has sometimes an obscure waved pale striga, at others some faint dusky spots: cilia cinereous, spotted with fuscous: anterior stigma subocellated, with a black iris, and cinereous pupil; posterior cinereous, edged with hoary and black: posterior wings fuscous, with the base rather ashy in the males.

A very variable insect: some examples are nearly immaculate, with the transverse strigæ very distinct; others, on the contrary, are very much clouded or suffused with black, with the strigæ more or less evident.

Caterpillar black, with a reddish-yellow spot on each segment, and orange legs: hairs yellowish-red:—it feeds upon various plants, especially the birch, aspen, heath, bramble, dewberry, whortleberry, &c., and is found in the autumn:—the imago appears in the beginning of June.

Not uncommon in certain years at Coombe-wood, and in Richmond-park, reposing during the day on the trunks of birch trees especially. In the year 1816 the insect was in great abundance at the former place, but since that period one or two solitary examples only have been obtained.

Sp. 9. *similis*. *Alis cinereis, strigâ subundatâ atrâ ante medium, aliâ fuscâ obliquâ abbreviatâ medio, tertiâque canâ submoniliformi limbi postici; posticis albidis fimbriâ subfuscâ.* (Exp. alar. 1 unc. 5 lin.)

No. *similis*. *Haworth.*—*Ac. similis*. *Steph. Catal. part ii. p. 93. No. 6286.*

Too closely allied to the last, of which I suspect that it is a mere dwarfish variety: it resembles the male of the preceding, but is of a deeper hue, and has the striga before the anterior stigma simple, with the wing dusky behind, as in the following species, and having a submoniliform striga of hoary dots: towards the hinder margin is a slightly dentate black striga, with a faint ψ at the anal angle: posterior wings somewhat fuscous, with the margin darker.

Found with the preceding insect.

Sp. 10. *Menyanthes*. PLATE 27. f. 1.—*Alis anticis albo-cinereis, fusco-nebulosis, maculis ordinariis strigæque posticâ flexuosa nigris, ad angulum uni caractere psiformi.* (Exp. alar. 1 unc. 6—7 lin.)

No. *Menyanthes*. Hübner.—Ac. *Menyanthes*. Steph. Catal. part ii. p. 93. No. 6287.

Head and thorax grayish-white, the latter with a black lateral line; anterior wings also whitish-gray, with a broad fuscous posterior margin, on the anterior edge of which is a strongly and rather closely denticulated pale striga, margined externally with black, and bearing a ψ mark near the anal angle: at the base of the wing is a dentate black striga; and on the costa between the stigmata is an oblique black line, frequently placed upon a suffused dusky spot; the anterior stigma is very small, and is formed by a black ring; the posterior is very imperfect, and more or less edged with black: cilia whitish, spotted with brown: posterior wings ashy-gray, with a central spot and the margin dusky: cilia whitish, sometimes cinerascens at the base.

Caterpillar black, with a longitudinal brownish-red lateral stripe above the legs:—it feeds on the *Menyanthes trifoliata*:—the imago is found in June.

This insect I believe has not hitherto been found in the neighbourhood of London, but it appears to be far from uncommon in the vicinity of Manchester, and in other parts of the north.

Sp. 11. *Rumicis*. *Alis anticis cinereoque fuscoque variis, strigis undatis nigris maculæque ad marginem interiorem albâ; posticis cinereis margine fusco.* (Exp. alar. 1 unc. 5—6 lin.)

Ph. No. *Rumicis*. Linné.—Don. iv. pl. 126.—Ac. *Rumicis*. Steph. Catal. part ii. p. 93. No. 6288.

Head and thorax whitish-gray, varied with black and ochraceous; anterior wings gray, thickly strigated with black, the strigæ very much waved, and placed in zigzags; the anterior stigma is placed in rather a clear patch, and is ocellated, the pupil being dusky, and the iris black; the posterior stigma is placed in an oblique dusky blotch, and is strongly margined with black, with its disc somewhat clouded with cinereous: between this stigma and the inner margin is an emarginate white spot, and on the posterior margin an undulated whitish striga: cilia cinereous, spotted with fuscous: posterior wings cinereous, with the margin and a central spot fuscous: abdomen ochraceous-ash.

Caterpillar fuscous, spotted on the sides with white and red, with a yellowish lateral line:—it feeds on the oak, poplar, bramble, dock (*Rumex*), &c.:—and



occurs in the autumn; the imago appearing towards the beginning or middle of May.

A very common species, not only throughout the metropolitan district, but in other parts: I have received specimens from the New Forest, Devonshire, Norfolk, &c. "Alderley, Cheshire."
—Rev. E. Stanley. "Epping."—Mr. H. Doubleday. "Netley."
—Rev. F. W. Hope.

Sp. 12. Euphorbiæ. *Alis anticis cinereis, fusco undatis, stigmatibus albidis, abdomine cinereo.* (Exp. alar. 1 unc. 5—6 lin.)

No. Euphorbiæ. *Wien. V.?*—Ac. Euphorbiæ. *Steph. Catal. part ii. p. 93. No. 6289.*

Closely allied to the foregoing: head and thorax cinereous, with a dusky lateral line; anterior wings cinereous, with a short basal striga, an undulated one before the middle, and a curved one behind, the space between the latter paler, and bearing the stigmata, which are rather pale and distinct, the anterior round, with a fuscous margin, the posterior reniform, clouded with cinereous, and bordered with fuscous; cilia spotted with fuscous; posterior wings and abdomen cinereous.

Caterpillar light-brown, with black dorsal spots, a ferruginous lunule on the neck, and a white streak on the anterior segments: it feeds on the Euphorbiæ *Esula* and *Cyparissias*:—the imago is produced in the beginning of May or the end of April.

This insect has been taken, though rarely, in the New Forest, and near London.

Sp. 13. Euphrasiæ. *Alis anticis ex flavo cinereis, fusco undatis, abdomine flavo-cinerascente.* (Exp. alar. 1 unc. 6 lin.)

Ac. Euphrasiæ. *Ochsenheimer.*—*Steph. Catal. part ii. p. 93. No. 6290.*

Head and thorax cinereous, varied with black, with the sides of the latter with a black line: anterior wings of a flavescent-ash, thickly strigated with black undulations, nearly as in Ac. *Rumicis*, but more obscurely; a pale waved striga near their posterior margin, and the latter spotted with fuscous; the anterior stigma obliterated; the posterior obscure plain cinereous, with a fuscous margin: posterior wings pale whitish-ash, with the border and a central lunule faintly suffused with fuscous: abdomen yellowish-ash: posterior wings dusky in the female.

Caterpillar black, with a row of white spots on the back, and irregular rufescent spots on the sides; legs black: it feeds on various plants, as the Euphrasia *officinalis*, the white thorn, bramble, whortleberry, birch, Euphorbiæ *Esula* and *Cyparissias*, &c.:—the imago appears in June.

My specimen of this insect was caught near London; I believe at Birch-wood.

GENUS CXXIV.—BRYOPHILA, *Ochsenheimer*.

Palpi porrected obliquely, rather long, slender, subclavate; the two basal joints clothed with compact, rather stout scales; the terminal joint exposed, elongate, acute; basal joint about as long as the terminal, slightly bent, and slender; second one-half as long again as the basal, a little curved near the base; terminal very slender, rather acute: *maxillæ* moderate. *Antennæ* moderate, rather slender, basal joint incrassated, pubescent within in the males, simple in the females: *head* small, with short compact scales on the forehead; *eyes* large, globose, naked: *thorax* rather slender, not crested: *abdomen* slender, carinated, and slightly tufted down the back, with a small tuft at the apex in the males, acute in the females: *wings* slightly deflexed during repose; *anterior* broad, elongate, triangular, entire: *posterior* rather ample. Larva slightly pilose. Pupa folliculated.

Bryophila bears considerable resemblance to the Diphtheræ in the form of its wings and the slenderness of its trunk and abdomen: but its smaller size, dissimilar palpi,—which, when denuded, are extremely slender, with the articulations nearly of an uniform thickness, excepting the apical one, which is rather more slender,—and general habit, sufficiently distinguish it from the insects of that genus.

Sp. 1. *glandifera*. *Alis anticis viridibus, lituris strigisque undatis nigris albo adnatis, costâ nigro punctatâ.* (Exp. alar. 11—14 lin.)

No. *glandifera*. *Wien. V.*—Br. *glandifera*. *Steph. Catal. pt. ii. p. 93. No. 6291.*
—Ph. No. Lichenes. *Don. vii. pl. 223. f. 3.*

Head and thorax grayish-green, the latter with a few black marks, which are sometimes obsolete: anterior wings of a pale green, with various irregular black lines and strigæ, more or less bordered with white; costa spotted with black; stigmata rather obsolete, anterior placed in an oblique fuscous patch, posterior more distinct; subcordate, pale fuscous; behind this is a bent submoniliform white striga, narrowly bordered interiorly with white, and exteriorly with a fuscous or greenish fascia, between which and the posterior margin is a triarcuated black striga, and on the hinder margin itself a row of fuscous spots; cilia whitish, with fuscous spots: posterior wings fuscous-ash, palest at the base; cilia white.

An extremely variable insect: sometimes nearly white, at others of a rufescent or hoary tinge, with the markings more or less obsolete, or confluent: posterior wings often with a narrow whitish striga behind the middle. Amongst the varieties which I possess are some which appear to belong to the *Noctua* Par of Hübner.

Caterpillar dirty ochraceous-yellow, with black spots, and a whitish or gray dorsal line, with a brown head: it feeds on the Lichen *saxatilis*:—the imago is produced towards the end of June, and continues some time on the wing.

Not uncommon on walls, &c. near London, particularly on an old wall at Bagnigge-wells, and near the World's End, Chelsea. "Coleshill."—*Rev. W. T. Bree.*

Sp. 2. perla. *Alis anticis cinerascens nigris undatis, maculis duabus fuscis albo marginatis.* (Exp. alar. 11 lin.—1 unc.)

No. perla. *Wien. V.*—Br. perla. *Steph. Catal. part ii. p. 93. No. 6292.*

Less than the preceding: head and thorax white, immaculate: anterior wings white, with several waved transverse black strigæ, an irregular abbreviated broken one at the base, a second before the middle, forming a margin to a large irregular fuscous spot, in which the anterior stigma, which is round and margined with whitish, is placed, the posterior stigma is bilobed, and also fuscous, edged with whitish and dusky; beyond this is a very slender somewhat angulated black striga, followed by a row of irregular black spots, and finally a marginal series of minute black dots, which are frequently edged within by a slender white striga composed of united lunular marks; cilia white, with a faint row of fuscous spots at the base: posterior wings ashy-white, with a central lunule, and the margin more or less fuscous: cilia white. More variable than the foregoing: anterior wings sometimes ochraceous or slightly virescent, with the strigæ more or less obliterated; or pale rufous-ash, with fuscous strigæ, which are more or less obscure or confluent. Caterpillar yellowish-gray with a black head: it feeds on the Lichen saxatilis:—the imago appears towards the end of July or beginning of August.

Also a very abundant species, especially on some old walls near Brompton, and on that of Greenwich-park, as well as in several other places throughout the metropolitan district. "Epping."—*Mr. H. Doubleday.* "Bottisham."—*Rev. L. Jenyns.*

GENUS CXXV.—DIPHThERA, *Hübner.*

Palpi distant, porrected obliquely, rather clavate, the two basal joints clothed with elongate scales, the terminal considerably exposed, elongate, the apex acute; basal joint very short, second elongate, robust, slightly bent, truncate obliquely; terminal elongate, slender, acute: *maxillæ* elongate. *Antennæ* rather short, slender, simple in both sexes, pubescent beneath in the males, the base with a small fascicle of scales: *head* rather broad, with the forehead clothed with short compact scales: *eyes* globose, naked: *thorax* not crested: *abdomen* not very stout, the back with a row of short tufts, the apex with a tuft in the males, and in the females somewhat acute: *wings* deflexed during repose: the *anterior* entire, somewhat elongate-triangular; *posterior* ample, entire. Larva pilose, resembling that of the genus *Hypogymna*: pupa folliculated, changes on the ground.

Diphthera in form somewhat resembles the insects of the pre-

ceding genus, but the thorax is stouter, the palpi more robust, with the basal joint very minute: the antennæ rather stout, pubescent; the head transverse, the wings ample, without the ordinary strigæ on the anterior; the cilia elongate: and the larva bears considerable resemblance in structure to those of the genus *Hypogymna*.

Sp. 2. Orion. *Alis anticis perviridibus plagâ longitudinali albâ, maculis fuscâque atris, apice punctorum trigonorum serie unicâ.* (Exp. alar. 1 unc. 4—5 lin.)

Ph. No. Orion. *Esper.*—Di. Orion. *Steph. Catal. part ii. p. 94. No. 6295.*

Head green, immaculate, with the sides whitish: thorax also green, with a transverse line anteriorly and some large spots on the back and behind black; anterior wings bright apple-green, with a broad longitudinal white dash on the disc; a black spot at the base, beyond which is an irregular broad black fascia, and about the middle an interrupted and very irregular black striga, to which are united two black spots, the posterior of which is transverse and edged with white, in place of the ordinary stigmata; behind the middle is a black striga, which is considerably varied towards the costa, and has a fuscous shining spot near the apex, and another near the anal angle; on the hinder margin is a row of minute trigonate black spots, bordered anteriorly with white: cilia white, spotted with fuscous; costa whitish, with a line at the base, and two spots between the strigæ, black: posterior wings deep fuscous, with two abbreviated white strigæ at the anal angle: cilia white, spotted with fuscous: abdomen ashy-brown, with a row of black dorsal spots.

Var. β . Di. runica. *Steph. Catal. part ii. p. 94. No. 6294.* Ph. No. aprilina. *Don. x. pl. 347. f. 1.*—With the anterior wings a little less spotted with black.

Caterpillar fuscous, with large oval ochraceous dorsal spots, and minute white ones between; each segment with a row of ferruginous tubercles, each bearing a fascicle of hairs: it feeds on the oak:—the imago is found in the beginning of June.

† Sp. 1. ludifica. “*Alis anticis virescentibus abdomineque flavo nigro punctatis.*” Linné.

Ph. No. ludifica. Linné.—Turton (!)—Di. ludifica. *Steph. Catal. part ii. p. 94. No. 6293. note.*

White above, with a black spot between the antennæ: thorax white, spotted with black, with a double reflexed black bow in front: anterior wings whitish, with various black zigzags and irregular black strigæ; cilia spotted with black: posterior wings ochraceous, yellowish on the inner margin; cilia white, with black spots: abdomen yellow, with a row of black spots on the back.

Caterpillar dusky, striped with blue and yellow, with the neck and posterior segments spotted with white:—it feeds on various trees, on the oak, black thorn, willow, &c.

Introduced by Turton into the indigenous Fauna, but improperly.

Whether there be two species confounded together under the above name, as separated in my Catalogue, the rarity of this beautiful species in Britain does not allow me to decide; but certain it is that the splendid figures of Sepp are widely different from those of the Papillons d'Europe; the larva having but three large ochraceous patches on the back, and the imago being very much spotted throughout with black, in the latter work. Near London a few examples have occurred at Birch-wood, and others have been taken in the west of England and near Ipswich during the past year:—Var. *α*. “Oakhampton-park, Somersetshire.”—*Dr. Leach*. Var. *β*. “Woodlands, near Plymouth.”—*Dr. Leach*.

GENUS CXXVI.—THYATIRA, *Ochsenheimer*.

Palpi distant, obliquely porrected, the two basal joints clothed with very long hairy scales, the terminal exposed, short, obtuse; the basal joint shorter than the apical, more slender than the second, and slightly bent, the second elongate, robust, a little attenuated towards the apex, terminal slender, elongate-ovate: *maxillæ* rather short. *Antennæ* short, rather stout, pubescent within in the males, somewhat slender in the females: *head* rather broad; *eyes* globose, naked: *thorax* transversely crested: *abdomen* slender, slightly reflexed on the sides, which are tufted, the apex with a small tuft in the males: *wings* deflexed, entire; *anterior* obtuse, broad, somewhat acuminate at the apex, without the ordinary strigæ; *posterior* ample. Larva naked, gibbous anteriorly: pupa folliculated.

The comparatively robust thorax of the Thyatiræ, which is covered with light silky hairs, forming a transverse crest, and the superior robustness and brevity of the antennæ, at once distinguish this genus from the preceding, and the obtuseness of its anterior wings from the following, to which it seems somewhat allied.

Sp. 1. *derasa*. *Alis anticis basi siliceis, medio fulvo albidoque variegatis, fasciis duabus albis, posticè convergentibus.* (Exp. alar. 1 unc. 6—8 lin.)

Ph. No. *derasa*. Linné.—*Don*. vii. pl. 223. f. 1.—Th. *derasa*. *Steph. Catal.* part ii. p. 94. No. 6296.

Head pale griseous; thorax griseous, with white and hoary shades: anterior wings with a large pale fuscous patch at the base, appearing as if destitute of scales, at the base of which arises an oblique slender white line, which unites, at a right angle near the costa, with a similar oblique line arising nearly at the base of the costa, and passing to the inner margin of the wing a little behind the middle; from the anal angle a third and more distinct one arises, nearly at right angles with the second, and terminates at the apex with a slight curve; between these two last fasciæ the space is varied with

cinereous and fulvous-brown, and bears the ordinary stigmata, which are bounded by white, the posterior one having a white centre; and behind them, towards the anal angle, the wing is most delicately pencilled with numerous slender cinereous and fuscous zigzag strigæ; the costa is white, with a few fulvous spots within and black spots on the margin; on the hinder margin is a white striga, composed of connected elliptic arches; posterior wings fuscous, with a paler central cloud; the posterior margin and cilia somewhat ochreous.

Caterpillar greenish-yellow, with dusky-brown spots and black lines: the imago appears at the end of July, or beginning of August.

Not very uncommon, though usually esteemed rare; specimens occur occasionally at Darenth-wood; and the insect has been taken in Epping Forest, near Hertford, and in other places within the metropolitan district. "Teignmouth, Devon."—*Rev. W. T. Bree*. "Epping."—*Mr. H. Doubleday*.

Sp. 2. *batis*. *Alis anticis olivaceo-fuscis maculis subrotundis quinque sesquialtera incarnatis, posticis fuscescentibus, strigâ pallidâ*. (Exp. alar. 1 unc. 5—7 lin.)

Ph. No. *batis*. *Linné*.—Th. *batis*. *Curtis*, ii. pl. 72.—*Steph. Catal. pt. ii. p. 94. No. 6297*.

Head gray-brown, thorax the same, transversely varied with pale ash, and tinted posteriorly with rosy: anterior wings olive-brown, with an irregular large pale rose-coloured spot at the base, in which are some pale fuscous clouds; a second small one near the middle of the inner margin; two, nearly united, at the apex of the costa, the apical one rather irregular in form; a larger spot on the anal angle, which is generally fuscescent in the centre, and a minute one adjoining it in the posterior margin, which latter, in fine specimens, has a series of rosy lunules, bordered with fuscous anteriorly: posterior wings fuscescent, the base palest, and a transverse pale slightly waved striga behind the middle; cilia flavescent.

The rosy spots are sometimes clouded with fuscous, and are sometimes white on the margin.

Caterpillar dusky or ferruginous, the back gibbous, the sides with a pale zigzag streak, the third segment with a bifid tubercle:—it feeds on the bramble, and the imago is found from the middle of June to the end of July.

A beautiful insect, usually esteemed rare, but improperly, as it occurs annually in several districts, especially at Darenth and Coombe-woods, and in Epping Forest. "Coleshill."—*Rev. W. T. Bree*. "Norwich."—*W. C. Hewitson, Esq.* "Epping, not very uncommon."—*Mr. H. Doubleday*.

GENUS CXXVII.—ERIOPIUS, *Treitschke*.

Antennæ slightly pectinated on the inner side, and rather pubescent beneath in the males, simple in the females: *thorax* crested: *abdomen* rather slender:

GENUS CXXVIII.—CALYPTRA, *Ochsenheimer*.

Palpi elongate, ascending, clothed with short capitate scales, which are rather longest in front of the two basal joints; the terminal joint scarcely less robust than the preceding; the basal joint shorter than the apical, rather stouter than the second, which is twice the length of the first, and a little acuminate at the apex, terminal joint nearly as long as the second, linear, its apex a little turned: *maxillæ* rather short. *Antennæ* rather short, robust, bipectinated to the apex in the males, the pectinations very short at the tip, subserrated and pubescent in the females: *head* transverse, with a tuft of scales on the forehead: *eyes* rather small, globose, naked: *thorax* stout, with a short acute crest anteriorly; *abdomen* rather stout, somewhat depressed, obtuse at the apex, the male with a subquadrate tuft: *wings* deflexed during repose; *anterior* deeply emarginate, and dentate, on the hinder margin; *posterior* slightly denticulate: *legs* stout, woolly; two basal joints of the *posterior tarsi* with long fascicles of scales, especially in the male.

Caterpillar slender, naked: pupa folliculate.

This singular genus is no less unfortunate in being constantly shifted about in arrangements, than for the continual variation in its nomenclature. Ochsenheimer gave the name Calyptra to it, without being aware of Lamarck having applied *nearby* the same term to a genus of Patellidæ (Calyptræa, Lam.; Calyptrus, De Mont.); an appellation changed by Treitschke to Calpe, and by

wings entire, deflexed, *anterior* slightly emarginate on the hinder margin: *legs*, *anterior* porrected when at rest, those of the males furnished with long woolly hairs as far as the penultimate joint of the tarsi; of the females simple.

† Sp. 1. Pteridis. *Alis anticis fuscis albo-maculatis fasciisque duabus purpureis.* (Exp. alar. 1 unc. 5. lin.)

No. Pteridis. *Fabricius, Samouelle (!)*—Er. Pteridis. *Steph. Catal. part ii. p. 94. No. 6298. note.*

Anterior wings fuscous, with the nervures, the margin of the stigmata, and three patches at the apex, whitish; before and behind the middle a broad purple fascia, and a transverse spot of the same colour on the anal angle: posterior wings dusky, with a pale striga beyond the middle.

Caterpillar feeds on the *Pteris aquilina*.

In the Entomologist's Compendium, this remarkable species is erroneously introduced as a native of Britain.

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Latreille to *Gonoptera*; the latter of which is equally objectionable with *Calyptra*, as a name of similar import, though slightly different in its orthography, was long since applied by Dr. Leach to *Papilio Rhamni*, as described in vol. i. p. 8. It would therefore be the best course to follow Treitschke, and retain *Calpe* as the generic name, were it not that *Ca. libatrix* differs considerably from the type, whence a difficulty arises on that head, which induced me to employ *Calyptra* in my Catalogue, and to retain that name for the British species. The location of the genus is far from satisfactory, but it has apparently some points of resemblance to *Eriopus* and *Thyatira*, rather than with any other indigenous genera, though its affinity thereto is very remote.

Sp. 1. *Libatrix*. *Alis anticis griseis rufo-nebulosis punctis duobus niveis, strigâque geminatâ posticâ obliquâ albâ.* (Exp. alar. 1 unc. 8—10 lin.)

Ph. No. *Libatrix*. *Linné.*—*Don.* vi. pl. 216.—*Ca. Libatrix*. *Steph. Catal.* part ii. p. 95. No. 6299.

Antennæ griseous, with a snow-white spot at the base; head fusco-griseous; thorax rufo-griseous, with the anterior margin, a dorsal line, and a transverse streak fuscous: anterior wings fusco-griseous, with an irregular extended patch at the base rufous, sprinkled with minute yellowish dots, and a row of whitish ones on the central nervure; this patch is divided transversely by an obscure whitish striga margined exteriorly with fuscous; a little behind the middle is an oblique geminated white striga edged interiorly with fuscous, from thence to the hinder margin plain griseous, with minute fuscous dots, and an obsolete undated whitish striga; at the base of the wing is a small snow-white spot, in place of the anterior stigm a second, and in lieu of the posterior stigma two black dots, placed transversely: abdomen rufescent; posterior wings fuscous, with a darker streak behind the middle, the base sometimes cinereous: legs griseous, tibia with a white spot; tarsi snow-white, annulated or spotted with ferruginous.

Caterpillar green, with reddish stigmata and a white lateral line: it feeds on the poplar, and on willows:—the imago appears towards the end of July and in April, and sometimes during the winter.

An abundant and highly beautiful species, frequenting places where poplars and willows abound, secreting itself in weedy banks, under bridges, outhouses, &c. “York and Newcastle.”—*W. C. Hewitson, Esq.* “Epping.”—*Mr. H. Doubleday.* “Carlisle.”—*T. C. Heysham, Esq.*

GENUS CXXIX.—CEROPACHA* *mili*.

Palpi short, porrect, scarcely ascending, somewhat distant, two basal joints clothed with long scales or hairs, terminal more or less elongate and exposed; basal joint rather short, a little stouter than the second, and reniform; second elongate acuminate, the apex somewhat obliquely truncate; terminal subclavate, obtuse; *maxillæ* rather short. *Antennæ* short, robust, rather slender at the base and apex, somewhat compressed in the middle, pubescent within, occasionally subserrate, simple in the females: *head* small, transverse, with a fascicle of hairs on the forehead: *eyes* globose, naked: *thorax* not crested, sometimes rather woolly: *abdomen* more or less attenuated; with or without lateral tufts, the back carinated: *wings* deflexed during repose, entire, rather various in form; *anterior* obtuse on the posterior margin, with the apex somewhat acute. Larva elongate, slender, naked, sometimes residing in a tortuous leaf: pupa folliculated.

The genus *Ceropacha*, as its name—which however is not classically constructed, the proper term *Pachycera* having been more than once preoccupied—implies, may be readily known by the brevity and stoutness of the antennæ, which are somewhat flattened towards the middle, and slightly attenuated at each extremity: but the genus, as it at present stands, is evidently a very artificial one; nevertheless I have not thought proper to separate the various members of which it is composed, but have permitted them to remain as in my Catalogue as sections, pointing out some of their more conspicuous deviations from the type.

A. With the anterior wings very broad and glossy; the abdomen slender; the palpi very short and slender, with the scales rather abbreviated on the basal joints.

Sp. 1. *fluctuosa*. *Alis anticis cinereo-albicantibus fasciâ latissimâ fuscâ in medio, in quâ lunulâ strigisque nigricantibus.* (Exp. alar. 1 unc. 4—8 lin.)

No. *fluctuosa*. *Hübner*.—Ce. *fluctuosa*. *Steph. Catal. part ii. p. 95. No. 6300.*

Head cinereous or fuscous: thorax griseous-brown, with the anterior and lateral margins cinereous; anterior wings cinereous at the base, with a black dot and fuscous striga; then a broad fuscous fascia extending beyond the middle of the wing, in which are some darker flexuous strigæ, and an obscure black lunule, edged exteriorly with whitish, in place of the posterior stigma; beyond the fascia is a slender denticulated fuscous striga, and towards the hinder margin is an indented whitish one, arising from an oblique blackish streak on the costa, placed on a dusky ground; on the margin itself is

* Κερας, cornu; παχας, crassus.

an interrupted dusky line; cilia fuscous: posterior wings whitish, with a striga behind the middle, and the posterior margin dusky; cilia pale ochraceous.

Caterpillar yellowish-white, with dusky-brown head: it feeds on the birch:—the imago is found about the middle of June, in woody places.

This handsome species is far from common; it occurs in Darent and Birch-woods, and very rarely at Coombe: in the former locality I have captured several examples at different periods.

Sp. 2. *duplaris*. *Alis anticis cinereis, fasciâ fuscescente in mediâ, in quâ punctis duobus nigris.* (Exp. alar. 1 unc. 3—6 lin.)

Ph. Ti. *duplaris*. *Linné*.—Ce. *duplaris*. *Steph. Catal. part ii. p. 95. No. 6301.*

Antennæ, head and thorax ashy-griseous, the latter margined with cinereous: anterior wings fuscous-ash, with the base rather paler, and having a short curved fuscous striga, and a second, edged with whitish, on the outer edge of the pale blotch; this is followed, as in the last species, by a broad fuscescent fascia, in which are some obscure transverse slightly waved strigæ, and on its exterior edge, in place of the posterior stigma are two distinct black dots, beyond which is a pale hoary-cinereous fascia, terminated by a dentate fuscous striga, from whence to the hinder margin is fuscous, with an undulated whitish striga, posterior margin with a slender obscure interrupted fuscous line; cilia fuscous, with minute darker spots at the base: posterior wings fuscous-ash, with an obscure paler striga behind the middle, and a dusky central lunule.

Very similar to the preceding, but smaller, and much darker and less glossy, but distinguished at once by the geminated black spots on the anterior wings.

Caterpillar yellowish-green with a reddish dorsal line and minute white dots; the head reddish-brown:—it feeds on the poplar:—the imago appears towards the middle of June, and frequents woody places.

Not very uncommon at Darent-wood and near Ripley: it occurs also in the New Forest, Devonshire, &c. “Epping, very common.” —*Mr. H. Doubleday*.

B. With the anterior wings broad, with distinct transverse fasciæ; body not very stout; palpi a little elongate, the second joint somewhat dilated, with rather long scales.

Sp. 3. *diluta*. *Alis anticis cinereis, fasciis duabus rectis ferrugineis obsoletis, strigâque pallidiori undatâ.* (Exp. alar. 1 unc. 3—6 lin.)

No. *diluta*. *Wien. V.*—Ce. *diluta*. *Steph. Catal. part ii. p. 95. No. 6302.*—Half Mourner. *Harris. pl. 35. f. 6—8.*

Head and thorax cinereous, the latter with a transverse dusky streak in front; anterior wings cinereous, irregularly clouded with obsolete dusky spots; with two nearly straight transverse pale ferruginous fasciæ, more or less distinct,

and with a dusky or whitish undulated striga, the anterior one placed before the middle, and edged exteriorly with black; the posterior one behind the middle, and bordered anteriorly with the same colour; behind the last is generally a pale waved striga, and an obscure one on the hinder margin, which has a slender dusky line; cilia slightly rosy: posterior wings whitish, with a fascia behind the middle, and the hinder margin cinereous; cilia rosy or whitish.

In some examples, the second transverse fascia is completely obliterated: and others have the rudiments of a third striga at the base of the anterior wings. Caterpillar pale, with a fuscous dorsal line, and black head: it feeds on the oak:—the imago appears towards the end of August.

A rare species; but found in several parts of the metropolitan district: I have captured specimens at Darenth-wood, and have seen others which were taken in the New Forest. “Epping.”—*Mr. H. Doubleday.*

Sp. 4. Or. *Alis anticis cinereis fusco undatis, maculâ mediâ griseâ OR ferè representante.* (Exp. alar. 1 unc. 6—8 lin.)

No. Or. *Wien. V.*—Ce. Or. *Steph. Catal. part ii. p. 95. No. 6303.* Ph. No. *gemina. Don. x. pl. 347. f. 3.*

Head and thorax cinereous, the latter with a transverse striga in front; anterior wings also cinereous, with a geminated striga at the base, then a fascia composed of numerous undated fuscous strigæ, and behind the middle a second fascia composed of five considerably angulated strigæ, the two outer ones being black, the central one fuscous, and the other cinereous; between the fascia are two griseous spots in place of the stigmata, the anterior one round and generally pupilled; the posterior with two black or fuscous spots, and forming a character resembling the letter R; near the hinder margin is a slightly waved palish striga, arising from an oblique dusky streak at the apex of the wing, and producing, externally, some faint black streaks on the nervures; on the hinder margin is a faint interrupted dusky line: posterior wings fuscous, with the margin darker, and the cilia cinereous.

Caterpillar green, with the head brown, with the anterior margin black:—it feeds on the poplar, and appears towards the end of June.

Rare: taken in several places throughout the metropolitan district: I have obtained specimens from Epping Forest, captured near Chigwell Row, and have once taken the insect at Darenth. I believe specimens have been taken in Devonshire.

Sp. 5. octogesima. PLATE 27. f. 2.—*Alis anticis purpurascens fusco undatis, maculâ mediâ flavâ, figuram 80 ferè representante.* (Exp. alar. 1 unc. 6—7 lin.)

No. octogesima. *Hübner?*—Le. octogesima. *Steph. Catal. part ii. p. 96. No. 6304.*

Head fuscous: thorax griseous, fuscous anteriorly: anterior wings purplish, darkest at the base, which has an obscure geminated dusky striga; towards the middle of the wing is a second deep black, slightly bent, geminated striga, preceded by a somewhat obscure dusky one; and behind the middle is a third, also of a deep black, and considerably curved; between these strigæ is an irregular yellow spot, bearing three fuscous clouds, and forming the figure 80; between the third striga and the hinder margin is a single curved fuscous striga, followed by a waved pale one, reaching from the costa to the anal angle; and at the apex is an oblique slightly curved black streak; on the hinder margin is an interrupted black line; the cilia are cinereous, with the apex darkest: posterior wings whitish-ash, with an obscure fascia behind the middle, and the hinder margin fuscouscent.

Caterpillar yellow, with black lateral dots, and three large spots anteriorly, the head brown:—it feeds on the poplar:—the imago is produced at the end of May or beginning of June.

Of this remarkably distinct species, I have hitherto seen but two examples; one in my own cabinet, captured near Birmingham; the other taken in the larva state last season, by my friend the Rev. F. W. Hope, at Netley in Salop, and reared by him, 30th May last, and shown to me alive. It has been taken near Bristol.

C. With the anterior wings elongate, rather narrow, obtuse: the posterior abbreviated, small: body short, robust, pilose or woolly: palpi very hairy at the base, the last joint considerably elongated and exposed.

Sp. 6. *flavicornis*. *Alis anticis cinereis, strigis tribus atris, antennis luteis, thorace hirsuto*. (Exp. alar. 1 unc. 6—7 lin.)

Ph. No. *flavicornis*. *Linné*.—*Don*. x. *pl*. 352. *f*. 2.—*Ce. flavicornis*. *Steph. Catal. part ii. p*. 96. *No*. 6305.

Head cinereous, mixed with black; thorax very pilose, cinereous, with black irrorations, and frequently two distinct streaks of the latter colour towards the anterior margin: anterior wings cinereous, tinged with greenish or yellowish towards the costa, with a geminated, oblique, subundulated deep black striga before the middle; a second, somewhat angulated in the centre, behind the middle, and a single undulated one near the hinder margin, reaching from the apex of the wing to the anal angle; the hinder margin itself with a faint slender dusky line; cilia ochraceous-ash, spotted with fuscous; anterior stigma very large, pale yellowish-ash, with a delicate fuscous margin, and sometimes a dusky centre: posterior wings fuscous-ash, with the margin, and a striga behind the middle, darker: antennæ bright luteous, with the base more or less cinerascenscent.

In some examples, the anterior wings have one or more additional black transverse strigæ, especially towards the base, and in others the strigæ are nearly obliterated.

Caterpillar yellowish-green, speckled with black, with a faint white lateral line, and two larger black spots with white pupils; head brown:—it feeds on the

birch, rolling the leaves up like a tortrix, and also on the poplar and oak:—the imago appears towards the end of February or beginning of March.

Rare: I have several times taken the larvæ at Coombe-wood, and once or twice at Darent. I believe specimens of the insect have been taken at Birch-wood.

Sp. 7. *ridens*. *Alis anticis viridi fusco alboque variis, maculâ baseos strigisque duabus undatis albidis, antennis flavescens*. (Exp. alar. 1 unc. 5—6 lin.)

No. *ridens*. *Fabricius*.—Le. *ridens*. *Steph. Catal. part ii. p. 96. No. 6306*.—

No. *chrysoceras*. *Beckwith, in Linn. Trans. ii. pl. 1. f. 1—3*.

Head and thorax greenish-brown, mixed with white hairs: anterior wings greenish-grey, variegated with fuscous and white, with a large distinct blotch of the latter colour at the base of the costa, from which arises a transverse undated whitish striga, from whence to behind the middle is a broad fuscous fascia, between which and the hinder margin is a considerably undulated whitish striga, and on the margin itself is a series of black lunules, bordered within, or towards the exterior margin of the wing, with white; at the apex is an oblique black streak: cilia greenish, with fuscous spots, connected with the black lunules: posterior wings white, with the nervures at the apex and the hinder margin fuscous: antennæ flavescens.

Caterpillar yellowish-green, with the upper surface palest, and a whitish stripe anteriorly; the sides, with some black dots, placed on a dull green streak; legs brown; head more or less rufous:—it feeds on the oak:—the imago appears towards the beginning or middle of April.

Also somewhat rare: found in Richmond-park, at Coombe-wood, and near Otford in Kent: also near Walthamstow, and in the New Forest. “Epping.”—*Mr. H. Doubleday*.

GENUS CXXX.—TETHEA, *Ochsenheimer*.

Palpi rather short, distant, porrected obliquely, not very robust, clothed with moderate scale-like hairs, the apical joint not concealed, ovate-acuminate; the basal joint half the length of, and stouter than, the second, slightly curved; the second elongate, rather slender, somewhat linear, slightly acute at each extremity, terminal about half the length of the basal, more slender than the second, elongate-obtuse: *maxillæ* moderate. *Antennæ* rather short, somewhat robust, pubescent within, each joint with a short bristle on each side in both sexes: *head* with a short tuft on the forehead: *eyes* naked, globose: *thorax* slightly crested anteriorly; *abdomen* very slender, not elongated, carinated above, the sides and apex with short fascicles of hair: *wings* deflexed; *anterior* abbreviated, retuse or slightly emarginate on the hinder margin, of plain colours, with nearly straight pale transverse lines; *posterior* rather ample, a little emarginate towards the costa on the hinder margin: *hinder tibiæ* rather

stout, with elongate hairs on their outer edge. Caterpillar naked, smooth, very slender: pupa slightly folliculated.

The retuse subemarginate anterior wings of this genus, combined with the slenderness of the antennæ, which are setose, slightly crested thorax, and dissimilar palpi, sufficiently distinguish it from the preceding and following, with which the continental naturalists have associated it: the only species known are of obscure colours, and the anterior wings are transversely marked with distinct, somewhat parallel, pale, nearly straight strigæ.

Sp. 1. *subtusa*. *Alis anticis fusco cinereis, stigmatibus tribus olivaceis flavescente marginatis, strigisque quatuor flavescenscibus.* (Exp. alar. 1 unc. 1—3 lin.)

No. *subtusa*. *Wien. V.*—Te. *subtusa*. *Steph. Catal. pt. ii. p. 96. No. 6307.*

Head and thorax uniform fuscous-ash; anterior wings also fuscous-ash, with an olivaceous tinge, with an abbreviated straight yellowish striga on the costa at the base; a second also straight placed rather obliquely, and midway between the first and the anterior stigma, pointing from the body when the wings are extended; a third incurved one behind the stigmata, and between it and the hinder margin, a fourth very obsolete undulated one: stigmata olivaceous, with yellowish margins; the third, which is placed between the ordinary anterior one and the inner margin, as in the *Agrotæ*, arises from the second striga; the hinder margin is rather darker than the rest, and has a delicate obscure pale line on its extreme edge; cilia olivaceous: posterior wings fuscous, with pale cinereous cilia.

It varies a little in colour, and in some examples there is a fuscous fascia across the anterior wings, as in the following species.

Caterpillar whitish-green, with pale stripes and small white spots, the head black, with a white forehead:—it feeds on the poplar.

Not common: found occasionally at Coombe and Darent-woods, and in Epping Forest, near Chigwell. “Epping.”—*Mr. H. Doubleday*.

Sp. 2. *retusa*. *Alis anticis fusco-griseis, submarginatis, strigis tribus pallidioribus, stigmatibus duobus olivaceis pallidè marginatis.* (Exp. alar. 1 unc.—1 unc. 1 lin.)

Ph. No. *retusa*. *Linné.*—Te. *retusa*. *Steph. Catal. part ii. p. 96. No. 6308.*

Ph. No. *chrysoglossa*. *Beckwith, in Lin. Trans. ii. pl. 1. f. 10—11.*

Head and thorax immaculate ashy-brown: anterior wings griseous-brown, with an abbreviated slightly incurved pale striga at the base, a second, nearly parallel with the former, between it and the anterior stigma, pointing towards the body on the inner edge of the wings, when the latter are expanded, and behind the posterior stigma a third also parallel with the others: each of these strigæ is margined on the outer edge with fuscous, and the space between the third striga and the hinder margin is entirely of that colour, with an

extremely obscure undulated striga about the middle; the stigmata are olivaceous, edged with pale ashy-brown, and between them, but nearest to the posterior one, is usually a transverse irregular fuscous fascia: cilia chestnut-brown: posterior wings fuscous, with pale reddish cilia.

Caterpillar extremely slender and green, with three white lines on the back and one on the sides: it feeds on the sallow and poplar:—the imago appears towards the end of July.

More abundant than the preceding species, but not common: it frequents the same haunts, and has also been taken in Devonshire and near Hertford.

Sp. 3. *gracilis*. *Alis anticis emarginatis, fuscis, strigis duabus sesquialterâ, marginibusque stigmatum pallidioribus.* (Exp. alar. 1 unc. 1 lin.)

No. *gracilis*. *Haworth*.—Te. *gracilis*. *Steph. Catal. part ii. p. 96. No. 6309.*

Very similar to the last, of which it may be only a variety: it differs in being rather larger, and in having the body longer and more gracile: the anterior wings being of a deeper fuscous, and wanting the undulated posterior striga, which is more or less conspicuous in the two foregoing species: the strigæ are placed as in the last, and the wings are of a more uniform colour.

Found with the preceding, from which it is scarcely specifically distinct.

GENUS CXXXI.—BOMBYCIA, *Hübner*.

Palpi very short, porrected nearly horizontally, the basal joints sparingly clothed with long hairs, which project nearly to the apex of the terminal one, which is not concealed; two basal joints nearly of equal length, the first very robust, subreniform, the second straight, attenuated to the apex, truncate, terminal less than half the length of the basal, ovate-acuminate: *maxillæ* rather short. *Antennæ* moderate, bipectinated and pubescent in the males, the pectinations extremely short at the apex, subserrated in the females, each joint producing a short bristle on each side: *head* small, with a rather elongate fascicle of scales on the forehead: *eyes* globose, naked: *thorax* rather stout, not crested: *abdomen* short, carinated, the sides and apex with fascicles of scales in both sexes: *wings* entire, deflexed during repose; *anterior* narrow, elongate, the hinder margin rounded; *posterior* small, scarcely emarginate: *posterior tibiæ* rather stout. Larva naked, smooth: pupa changes in a delicate web.

The pectinated antennæ of the male sufficiently distinguish that sex from the two preceding genera with which this genus has hitherto been associated, and the short, straight palpi separate both sexes from the above and from the following; and the female is still farther distinguished from *Cymatophora* by its abbreviated obtuse

abdomen, which in the genus just mentioned is elongate and very acute; the scanty clothing to the palpi and the truncation of their second articulation are also peculiar characters.

Sp. 1. *Viminalis*. *Alis anticis cinereo-canescensibus fulvo undatis, stigmatibus ordinariis pallidis, lineolâque basi atrâ.* (Exp. alar. 1 unc. 1—3 lin.)

No. *Viminalis*. *Fabricius*.—Bo. *Viminalis*. *Steph. Catal. part ii. p. 96. No. 6310.*

Head and thorax gray, the latter with a transverse dusky striga in front: anterior wings shining hoary-ash, with fuscous clouds and tinted with purplish or fulvous; with a deep black line at the base, the space between which and the anterior margin is pale immaculate hoary-ash; the ordinary strigæ are rather indistinct, pale with fulvescent margins; the stigmata are pale, slightly clouded in the centre with cinereous, and bordered with an interrupted black line, and there is a third indistinct one, also edged with black, and united by a black hook to a spot of similar hue between the posterior stigma and the inner margin: on the hinder margin is a row of black dots: cilia cinereous, tinted with rosy: posterior wings hoary, with a faint fuscous line on the margin: cilia hoary, sometimes tinted with rosy: abdomen with its sides and apex in the male more or less rosy.

This varies considerably in colour, some examples being brilliantly suffused with purple, and others being nearly plain ash.

Caterpillar pale-green, with five pale or whitish longitudinal stripes; head brown or dusky, with black spots: it feeds on various kinds of willow.

Taken at Coombe and Darenth-woods, and near Hertford and Ripley; not very abundant.

GENUS CXXXII.—CYMATOPHORA, *Treitschke*.

Palpi rather short, ascending, densely clothed with elongate scales at the base, the terminal joint exposed and somewhat acute; basal joint about the length of the terminal, a little bent and slightly stouter than the second, which is rather slender and curved, with the base a little attenuated; the apex obtuse, terminal ovate-conic subacute; *maxillæ* moderate. *Antennæ* rather long, bipectinated nearly to the apex, and pubescent in the males, subserrated in the females: *head* small, round: *eyes* large, globose, naked: *thorax* rather stout; not crested, clothed with woolly hairs beneath: *abdomen* rather slender, very pubescent, with longer tufts on the sides and at the apex in the males; less pubescent in the females, somewhat elongated, robust at the base and abruptly conic towards the tip, which is very acute, the ovipositor being generally exerted: *wings* deflexed during repose; *anterior* entire, obtuse, rather broad; *posterior* ample; *legs* stout, woolly at the base. *Larva* naked, smooth; pupa foliculated.

The ascending squamose palpi of this genus readily distinguish it from *Bombycia*, with which the males agree in having the antennæ bipectinated; and the breadth of the anterior wings, as well as the robustness of the thorax, the densely woolly under surface, and the pubescent abdomen of the male, and elongated acute one of the female, form the prominent marks of distinction. By this last character the females approach towards those of the following genus, but the rotundity of the hinder margin of the anterior wings and subserrated antennæ at once divide them therefrom.

Sp. 1. Oo. *Alis anticis pallidè flavis ferrugineo strigosis et subreticulatis, stigmatibus tribus flavis, postico cordiforme.* (Exp. alar. 1 unc. 3—7 lin.)

Ph. Bo. Oo. *Linné.*—*Don. v. pl. 179.*—Cy. Oo. *Steph. Catal. part ii. p. 97. No. 6311.*

Head and thorax pale ochraceous-yellow, sprinkled with dusky; anterior wings pale yellow, with a pale ferruginous fascia near the base, and another between the stigmata, but united to the anterior margin of the posterior one; before the middle is a submoniliform incurved striga pointing towards the body; and behind is a second arcuated one, both formed by a pale ferruginous geminated striga; and towards the hinder margin is another ferruginous striga, a little curved near the costa; the hinder margin is pale ochraceous yellow; the nervures throughout are ferruginous, and produce a reticulated appearance; the stigmata are very conspicuous, pale-yellow, with ferruginous edges, the anterior one round, the posterior heart-shaped, with a more or less distinct angulated ferruginous central mark; between the anterior stigma and the inner margin is a third round or ovate stigma, also yellow, edged with ferruginous; cilia spotted with the latter colour: posterior wings yellowish-white.

Var. β . With the base of the anterior wings clouded with dusky-ferruginous, and a broad fascia of the same colour extending from the posterior stigma nearly to the hinder margin; in other respects similar to the above.

Caterpillar ferruginous or dusky, with white spots and lines, and the head black:—it feeds on the oak, and the imago is produced towards the beginning of June or the end of May.

Not very common; it has however been taken rather plentifully near Chigwell-row, in Epping Forest, and at Darenth-wood. I have also taken it on Clandon Common, and it has been found in other places in the vicinity. “Leatherhead.”—*T. Lupton, Esq.* “York, on oaks.”—*W. C. Hewitson, Esq.*

GENUS CXXXIII.—COSMIA, *Ochsenheimer.*

Palpi moderate, ascending, densely clothed with elongate scales on the two basal joints, the terminal exposed, somewhat acute: basal joint elongate, nearly three-

fourths the length of the second, arcuated, the second scarcely more slender than the first, linear, and somewhat bent at the base; terminal more slender; elongate, above half the length of the second, slightly attenuated at the apex, which is acute: *maxillæ* moderate. *Antennæ* short, rather slender, pubescent within, each articulation furnished with a bristle on each side, shortest in the females: *head* small, rounded: *eyes* large, globose, naked: *thorax* stout, not crested: *abdomen* rather slender, with tufts of hair on the sides, and a larger tuft at the apex, especially in the males, of the females gradually attenuated from the base to the apex, which is somewhat acute: *wings* deflexed during repose; *anterior* subtriangular, slightly truncate or obscurely emarginate on their hinder margin, with distinct angulated strigæ; *posterior* rather ample. Larva naked, with a few scattered hairs: pupa subterranean.

From *Cymatophora*, this genus differs by having the anterior wings somewhat truncate or emarginate, as well as by the slenderness of its palpi and the simplicity of its antennæ; and from *Xanthia*—with which it agrees in its truncated anterior wings—the absence of the thoracic crest, and deep angulated strigæ on the anterior wings, readily distinguish it: the species are æstival.

Sp. 1. *diffinis*. *Alis anticis ferrugineo-brunneis, maculis tribus aut quatuor margine anteriori albis, punctisque duobus apicis nigris.* (Exp. alar. 1 unc. 2—4 lin.)

Ph. No. *diffinis*. *Linné*.—Co. *diffinis*. *Steph. Catal. part ii. p. 97. No. 6312.*
White-spotted Pinion. *Harris, pl. v. f. 8.*

Head and thorax pale rosy-brown; eyes black: anterior wings variegated with rosy-brown and ferruginous, with dusky shades; the former colour predominating on the costa; at the base of the latter is a slender abbreviated white striga; before the middle is a subtriangular, slightly flexuous white spot, from which arises a pale striga reaching to the inner margin, and bordered exteriorly with fuscous; behind the middle is another white spot, rounded anteriorly and emarginated posteriorly, from which also arises a pale or whitish streak, which is considerably bent at its origin, and margined anteriorly with fuscous; at the apex of the costa is a fourth rather faint arcuated white spot or striga, continued to near the anal angle, and united by a pale longitudinal marginal line to the transverse striga last-mentioned: at the apex of the costa are two black dots: cilia rosy-brown: posterior wings deep fuscous, with fulvous cilia.

Some specimens are of a richer hue than others, and the white costal spots are more or less distinct.

Caterpillar green, striped with white, with the head and anterior legs black;—it feeds on the elm:—the imago appears towards the middle of August.

Not very abundant; taken occasionally on the elms in Copenhagen-fields, and in other places in the vicinity of London: I have

met with it at Hertford, and near Ripley: and I believe it has been found in Devonshire. “Epping.”—*Mr. H. Doubleday*.

Sp. 2. *affinis*. *Alis anticis fusco-ferrugineis stigmatibus distinctis puncto nigro notatis, posticis nigris ciliis flavescentibus.* (Exp. alar. 1 unc. 1—2 lin.)

Ph. No. *affinis*. *Linné*.—Co. *affinis*. *Steph. Catal. part ii. p. 97. No. 6313. Albin, pl. xxxi. f. 49.*

Head and thorax as in the preceding, but more dusky: anterior wings ferruginous or griseous-brown, with a more or less distinct abbreviated whitish striga at the base on the costa, then another flexuous one before, and a third somewhat angulated behind the middle, arising from a more distinct white patch; between these are placed the usual stigmata, which are merely indicated, the anterior by a black spot, the posterior by two similar ones, placed transversely, and surrounded by a pale circle; behind the posterior stigma is generally a dusky angulated striga; and near the hinder margin is an indistinct undulated pale one; at the apex of the wing are two black spots: posterior wings black, with yellowish cilia.

Scarcely two specimens occur precisely similar; in some examples, the spots on the costa of the anterior wings are nearly white, as in the foregoing species, and in others they are almost obliterated: the colour of the wings also varies much, being sometimes nearly fuscous, and at others of a rosy-ferruginous.

Caterpillar greenish-white, with obscure green lines, and elevated black dots, each segment with a black lunule above the stigmata:—it feeds on the elm:—the imago occurs towards the end of July.

Not uncommon: in plenty in July, 1827, in the shady lanes near Ripley, where the elms abound: also taken at Hertford, in Copenhagen-fields, near Stepney, Bow, &c., and I believe throughout the metropolitan district.

Sp. 3. *Pyalina*. *Alis anticis bruneis fusco undatis, lituræque posticæ sublunari costali albidæ.* (Exp. alar. 1 unc. 4—5 lin.)

No. *Pyalina*. *Wien. V.*—*Hatchett, in Entom. Trans. i. pl. 9. f. 1.*—Co. *Pyalina*. *Steph. Catal. part ii. p. 97. No. 6314.*

Head and thorax rufous: anterior wings of a rich purplish red or brown, with strongly undulated fuscous strigæ, and a deep angulated whitish one behind the middle, edged anteriorly with black, and arising from the base of a sub-lunar whitish spot, which extends nearly to the apex of the wing, which latter bears two rather suffused fuscous spots: towards the hinder margin is a faint undulated striga: cilia deep reddish-brown: posterior wings pale fuscous, with rufous cilia: abdomen fuscous, with a rosy tuft at its apex.

Caterpillar green, with fine white lines, with a few white spots on the back:—the imago is produced towards the end of July.

Rare: but few examples having occurred in England: two or

three have been taken near Birch-wood in different years, and one has been found in Epping Forest. “Barham.”—*Rev. W. Kirby.*

Sp. 4. trapezina. *Alis anticis griseis, flavicantibus vel rufescentibus strigis saturatioribus, puncto medio nigro, margineque postico nigro punctato.* (Exp. alar. 1 unc. 3—5 lin.)

Ph. No. trapezina. *Linné.*—Co. trapezina. *Steph. Catal. part ii. p. 97. No. 6315.* Dun-bar. *Harris, pl. x. f. n—v.*

Extremely variable: head and thorax plain griseous, yellowish, or rufous; anterior wings the same, with darker shades, with a delicate abbreviated fuscous striga at the base, an oblique distinct one, edged with whitish anteriorly before the middle, and a third arcuated one behind, approximating towards the second on the inner margin, and whitish exteriorly; between the last and the hinder margin is a slightly undulated pale striga, which is sometimes very obscure and somewhat interrupted; on the hinder margin is a row of minute black spots, the stigmata are rather obscure, the margins alone being visible, with a black spot at the base of the posterior one: between them is generally a rather broad somewhat angled dusky fascia: posterior wings fuscous, with the costa yellowish, and cilia rufous.

In some examples, the space between the second and third strigæ is suffused with fuscous, and others are of a nearly uniform tint; in colour scarcely two individuals agree: in some the posterior wings are rufous, with a fuscous fimbria, while others have the margin ochraceous, with rufous or luteous cilia.

Caterpillar green or dusky, with cinereous streaks and yellowish spots:—it feeds on various trees, as the oak, lime, hazel, birch, poplar, &c. and does not hesitate to attack other larvæ and devour them, as well as its own species; hence (in common with the larva of *Glæa satellitia*) called the *Monster*:—the imago is produced towards the end of July, and continues for some time.

Extremely abundant, not only throughout the metropolitan district, but in more distant parts, as Devonshire, Glamorganshire, Shropshire, &c.

Sp. 5. fulvago. *Alis anticis flavescentibus aut luteis, strigis duabus subferrugineis, stigmatibus pallidioribus, posteriori maculâ nigrâ.* (Exp. alar. 1 unc. 5—8 lin.)

No. fulvago. *Wien. V.*—Co. fulvago. *Steph. Catal. part ii. p. 97. No. 6316.* No. angulago. *Hatchett, in Entom. Trans. i. pl. 5. fig. sup.*

Head and thorax plain yellow or luteous; anterior wings the same, with an obscure abbreviated striga at the base, a distinct one-angled striga before the middle, and a somewhat sinuated one behind the middle, of a ferruginous hue; the latter is followed by an obscure undated striga; and on the hinder margin itself are some more or less distinct dusky ferruginous spots: cilia a little tinted with ferruginous at the apex; stigmata rather pale, the margin slightly ferruginous, the posterior one with a fuscous spot at its base; abdomen and posterior wings of a yellowish-white or straw-colour.

In some specimens there is a strong fuscous angulated fascia between the stigmata : others are nearly quite plain.

Caterpillar dirty-green, with a whitish dorsal stripe and three pale lateral ones :— it feeds on the birch :—the imago appears towards the end of July.

Very rare ; and I believe hitherto only taken on the borders of Birch-wood, where, however, not above three or four specimens have been captured within these ten years.

GENUS CXXXIV.—XANTHIA, *Hübner*.

Palpi rather short, obliquely porrected, thickly clothed with elongate scales, the terminal joint slightly exposed and obtuse, basal joint less than half the length of the second, rather slender at its base, curved upwards, second very long, attenuated and somewhat acute at the apex, terminal elongate, apex slightly conic : *maxillæ* as long as the antennæ. *Antennæ* rather stout, long, simple in both sexes, pubescent, ciliated transversely beneath in the males : *head* round, small : *eyes* naked : *thorax* somewhat robust, slightly crested ; *abdomen* moderately stout, carinated in the males, cylindric and rather acute at the tip in the females, with a small tuft at the apex ; sometimes depressed in both sexes, with the sides slightly reflexed : *wings* entire or crenulated, deflexed during repose : anterior subtriangular ; posterior moderate. Larva naked : pupa subterranean.

Xanthia, as at present constituted, is strictly an artificial group, many of the species of which it is composed scarcely agreeing in one particular, excepting in the flavescent or golden tints—whence the name of the genus—which adorn their anterior wings and trunk : all however have the thorax slightly crested, the palpi with the terminal joint not very much exposed* ; but the palpi themselves differ in their external form, some being obliquely porrected, others nearly straight ; the form of the anterior wings differs greatly, some species having them crenate and others entire, but all are rather emarginate on the posterior margin ; again, *Xa. croceago* has the abdomen very much depressed, with porrect palpi, and evidently differs much from the rest of the genus, as does also *Xa. rufina*, which has the abdomen rather elongate, the anterior wings acute and somewhat reticulated, &c. : most of the species are autumnal, some however are æstival.

* By this term, when alluding to the terminal joint of the palpi, here and elsewhere, I merely intend to express that this part (which is always clothed with minute short scales) is visibly produced beyond the long scales which usually ornament the basal joints, not that it is naked.

Sp. 1. *flavago*. *Alis anticis aurantiis, punctis maculis fasciâque maculosâ obliquâ pone medium purpurascens, thorace anticè subfusco.* (Exp. alar. 1 unc. 3—4 lin.)

No. *flavago*. *Fabricius*.—*Xa. flavago*. *Steph. Catal. part ii. p. 98. No. 6317.*
Albin. pl. lxxviii. f. a—d.

Head and anterior portion of the thorax reddish-fuscous, tinted with orange; hinder portion of the latter orange; anterior wings of the latter colour, with a large spot at the base of the costa, a smaller flexuous one towards the middle, and an oblique transverse fascia composed of numerous confluent spots towards the hinder margin purplish; there are also a few scattered spots of the same hue on the disc, and towards the hinder margin a row of somewhat fuscous ones; cilia purplish; stigmata very obsolete, the posterior indicated by a fuscous spot, and a minute purplish one towards the costa, situated on the anterior margin of the oblique transverse fascia: posterior wings pale-yellow, with an obscure transverse fuscous striga behind the middle; cilia yellow. Caterpillar brown, a little clouded with dusky, with a round head:—it feeds on the willow and plantain:—the imago is produced in the beginning of September.

Not uncommon in the woods near London; at Oak of Honour and Sydenham woods, and at Coombe I have frequently taken it; and also at Birch-wood. It also occurs at Darent.

Sp. 2. *fulvago*. *Alis anticis flavis rufo-fusco subfasciatis, strigâque posticâ punctorum fuscorum, thorace flavo.* (Exp. alar. 1 unc. 3—5 lin.)

Ph. No. *fulvago*. *Linné*.—*Xa. fulvago*. *Steph. Catal. part ii. p. 98. No. 6318.*
Ph. rubago. *Don. x. pl. 338. f. 2.*

Head and thorax yellow, the latter with two rufo-fuscous spots: anterior wings also yellow, with a deep fuscous spot at the base, followed by a subinterrupted rufo-fuscous fascia, arising from a distinct spot on the costa, then some irregular clouds of the same colour, followed behind the middle of the wing by a broad but very much interrupted and irregular fascia of similar hue, composed of spots and lunular marks, and towards the hinder margin a row of distinct fuscous dots: the anterior stigma is faintly indicated by a fuscous-rufescent ring, and the posterior by a deep fuscous spot at its base: cilia pale-orange, with the tip darker: posterior wings yellowish-white, with sulphureous cilia.

Var. β . With the fasciæ on the anterior wings more confluent and of a deep fuscous, the cilia spotted with fuscous.

Var. γ . With the anterior wings of a rich orange, obsoletely but more regularly fasciated with purplish-brown than in var. α , and the row of fuscous spots on the posterior margin nearly obsolete.

Var. δ . With the anterior wings very pale-yellow, and obsoletely clouded and fasciated, the cilia very deep fuscous at the tip, and the posterior row of spots very distinct.

Caterpillar pale, with a brown head:—it feeds on the birch:—the imago comes forth about the middle of September.

Very common; frequenting woods and plantations where the birch is plentiful throughout the metropolitan district.

Sp. 3. *gilvago*. *Alis sulphureis fulvo vix nebulosis, puncto pone medium strigâque posticâ punctorum fuscorum.* (Exp. alar. 1 unc. 4—5 lin.)

No. *gilvago*. *Fabricius?*—*Xa. gilvago*. *Steph. Catal. part ii. p. 98. No. 6319.*

Head, thorax, and anterior wings nearly of a plain unclouded pale sulphureous or lemon-yellow, the latter with a dusky spot in the place of the base of the posterior stigma, and a row of minute, though very distinct, fuscous dots towards the hinder margin, five or six in number; the anterior stigma rather paler than the rest of the wing, with a faint luteous circle; cilia immaculate: posterior wings and cilia pure white.

Probably a mere extraordinary variety of the foregoing: its chief difference from var. δ . of which consists in its very pale sulphureous-yellow unclouded anterior wings, and in the distinctness and intensity of the posterior series of dots.

Taken, but very rarely, in company with the former, at Darenth and Birch woods. “Epping, once taken.”—*Mr. H. Doubleday.*

Sp. 4. *aurago*. *Alis anticis aureo-flavis rufo-nebulosis, fasciis duabus purpureo-fuscescentibus.* (Exp. alar. 1 unc. 4—5 lin.)

No. *aurago*. *Wien. V.*—*Xa. aurago*. *Steph. Catal. part ii. p. 95. No. 6320.*

Head orange: thorax the same, mixed with purplish-red: anterior wings golden-yellow, clouded with rufous, with a distinct, somewhat trilobate, purplish-red or fuscous fascia at the base, and a broad one of similar hue on the hinder margin, having a waved striga, composed of golden-yellow spots in the middle; which striga arises from an expanded spot of similar hue near the apex of the costa, and divides the fascia, as it were, into two, the exterior portion being of a deeper colour, and frequently spotted with yellow; anterior stigma formed by a subannular rufous cloud; posterior very indistinct, with a rufous cloud at its base; cilia fuscous, obsoletely spotted with yellow at the base: posterior wings pale reddish-yellow, with an indistinct posterior striga, the margin, and the cilia rufous.

As in its congeners, this beautiful and very distinct species varies considerably in the intensity and brilliancy of its colour.

Caterpillar griseous, with oblique fuscous lineolæ:—it feeds on the willow and on willows:—the imago is produced towards the end of August or beginning of September.

Not common; taken occasionally at Darenth-wood, and near Peckham.

Sp. 5. *centrago*. *Alis anticis crenatis aureo-flavis, fasciâ unangulatâ medio margineque postico fuscescentibus, thorace rufescente.* (Exp. alar. 1 unc. 4—5 lin.)

No. centrugo. *Haworth*.—Xa. centrugo. *Curtis*, ii. pl. 84.—*Steph. Catal. pt. ii. p. 98. No. 6321.*

Head and thorax of a rich orange-yellow tinted with red: anterior wings golden-orange: with a dusky spot, or abbreviated line at the base, a broad reddish-brown fascia in the centre, broadest towards the costa, where it is nearly obliterated; and on the hinder margin is another fascia of similar hue, rather irregularly crenate in its anterior edge; cilia also fuscous: in the central fascia, towards the costa, is a deeper somewhat quadrate spot in place of the posterior stigma, and the fascia itself is margined with pale golden-yellow: posterior wings pale reddish-yellow, the margin darkest, and two obscure strigæ behind the middle; cilia brownish.

The crenated and somewhat angulated anterior wings of this elegant insect obviously distinguish it from its congeners, with which it chiefly seems to agree in its orange colours.

Four or five specimens only were known of this handsome species before the summer of 1827, when five or six pair were captured in the north of England, by Mr. Weaver:—the former specimens were captured, one in Dorsetshire, and three in Norfolk; and one was in Mr. Francillon's collection, but of its locality I am not aware.

Sp. 6. citrugo. *Alis anticis luteis rufo adspersis, strigis quatuor venisque ferrugineis* (Exp. alar. 1 unc. 4—6 lin.)

Ph. No. citrugo. *Linné*.—Xa. citrugo. *Steph. Catal. part ii. p. 98. No. 6322.*

Head luteous-orange: thorax the same, with a rufo-fuscous stripe down its centre: anterior wings rich luteous-orange, thickly sprinkled throughout, especially towards the apex, with minute rufous atoms, with the nervures and four transverse strigæ ferruginous; the first striga abbreviated, incurved, and basal; the second before the anterior stigma angulated near the costa, and somewhat flexuous to the inner margin; the third between the stigmata much broader than the others, slightly bent towards the middle, placed obliquely, and nearly uniting with the second on the inner margin, which is deep fuscous; the fourth is placed behind the stigmata, and runs nearly parallel with the third; and between it and the hinder margin is a rather obscure pale striga, composed of lunular spots; the hinder margin itself is faintly edged with ferruginous; the anterior stigma is very distinct, round, pale-luteous, with its centre rufescent, and its margin ferruginous; the posterior is also clouded with rufous, with the margin ferruginous; cilia reddish-orange: posterior wings pale reddish-yellow, with the margin darker, and the cilia luteous: abdomen flavescent, with a row of rufo-fuscous tufts of hair down the back.

Caterpillar fuscous, with a pale dorsal and lateral streak, a flavescent line above the legs, and two elongate black spots on the side of each segment: head reddish;—it feeds on the lime:—the imago appears about the middle of August.

Rather uncommon: the only locality that I am acquainted with is Epping Forest, near Walthamstow, where the late Mr. Blunt

used to find the larvæ rather abundantly on the lime trees, crawling upon the bark.

Sp. 7. *fimbriago*. *Alis anticis flavis rufo-subnebulosis, margine postico latissimo rufo-fuscescente*. (Exp. alar. 1 unc. 4 lin.)

Xa. *fimbriago mihi*. *Steph. Catal. part ii. p. 99. No. 6322.*

Head pale luteous-yellow; thorax the same, with two fuscous spots (probably the rudiments of a transverse striga, the crest being rubbed off my specimen); anterior wings pale luteous-yellow from the base nearly to the posterior stigma, with a pale subquadrate rufescent spot on the costa, and several minute irregular rufous clouds on the disc; the anterior stigma whitish, with a fuscous circle; posterior half of the wing rufo-fuscescent, with a purplish hue, with the anterior edge and region of the stigma, and an undulated striga towards the hinder margin, at the extreme edge of the latter, and the cilia of a deeper hue; the discoidal nervures are slightly fuscous; and behind the posterior stigma is a slender, but very distinct, flexuous line, extending to about the third nervure from the inner margin: posterior wings reddish-yellow, with the base paler or whitish.

The only example I have seen of this very remarkable and distinct species, I obtained from the Marshamian cabinet: it appears to be perfectly new, but of its locality I am ignorant.

Sp. 8. *croceago*. *Alis anticis flavo-ferrugineis strigis punctisque fuscis, margine anteriori albo punctato*. (Exp. alar. 1 unc. 1—4 lin.)

No. *croceago*. *Wien. V.—Xa. croceago*. *Steph. Catal. part ii. p. 99. No. 6324.*

Head and thorax rufo-fuscous, the latter highly and acutely crested towards the anterior margin; anterior wings ferruginous-yellow or orange, with the ordinary strigæ rather indistinct, the base somewhat clouded with pale fuscous, and the apex with some darker spots placed in two distinct rows, one, geminated, a little behind the posterior stigma, the other on the hinder margin itself; and midway between these is a slightly waved fuscous striga; and from the base of the posterior stigma to the inner margin is a more distinct oblique fuscous striga, which has frequently a branch, placed at a right angle, at its origin on the stigma, leading between the stigmata to the costa; which latter has five or six very distinct, subequidistant, white spots placed between the base and the posterior stigma; stigmata rather large, pale-orange, with darker clouds: posterior wings white, with a pale abbreviated rosy or fuscous striga behind the middle, and a central spot, both sometimes obsolete.

The colour of the anterior wings, and the intensity of their markings, vary considerably.

Caterpillar yellowish, with a fuscous dorsal line, and oblique lateral orange streaks;—it feeds on the oak:—the imago appears in September.

Xa. *croceago* apparently differs considerably from the preceding species of the genus: the palpi being porrected horizontally, with the terminal joint slightly

depending: the head is also furnished with a conical crest of scales, and the abdomen is greatly depressed in the females: but the proportions of the joints of the former and their form are not very dissimilar to those of the true *Xanthiæ* when denuded:—I have therefore still retained the insect in this genus.

Not uncommon, frequenting the oak woods of Surrey and Kent; also found near Hertford and in Devonshire.

Sp. 9. *rufina*. *Alis anticis rufis, stigmatibus pallidioribus, fasciis duabus strigâque saturatioribus*. (Exp. alar. 1 unc. 4—6 lin.)

Ph. Bo. *rufina*. *Linné*.—*Xa. rufina*. *Steph. Catal. part ii. p. 99. No. 6325*.

Head and thorax uniform bright rufous, immaculate: anterior wings also rufous, with an undulated fascia at the base, an angulated striga between the stigmata, and a broader fascia, interrupted by the nervures being of a paler hue, behind the stigmata of a deeper colour; stigmata rather pale, with the margins slightly paler; cilia with the apex rather dark: posterior wings fuscous, with the costa somewhat ochraceous, the hinder margin and the cilia rufescent: abdomen rufous, with the base fuscous, and a few cinereous hairs intermixed.

Extremely variable in colour, some examples being suffused with a rich castaneous hue; others, on the contrary, are nearly ochraceous; the markings are very constant, but differ in intensity.

Caterpillar reddish-brown, spotted with white, with a white lateral line;—it feeds on the oak;—the imago is produced about the middle of September, and frequents woody places.

Not uncommon, especially in the woods of Kent, within the metropolitan district: it also occurs in Epping Forest, near Hertford, and at Coombe-wood.

With the insect just mentioned should evidently be associated *Noctua macilenta* of Haworth (*Orthosia?* *macilenta*, vol. ii. p. 148), *No. ferruginea* of the Wiener Verzeichnis, as surmised in the above page*, which, with some continental species, appear to form a group intermediate between *Xanthia* and *Gortyna*, but not strictly referrible to either; differing from the true *Xanthiæ* by the acuteness and general form of the anterior wings, and the elongation of the abdomen; from both by having the thorax scarcely crested, and from *Gortyna* by the larva not being radicivorous:—it therefore appears to me that the most advisable and proper course to adopt,

* As I am now satisfied that the *Noctua flavilinea* of Haworth is synonymous with the *Orthosia macilenta* of the continental writers, and the insect above alluded to with their *Xanthia ferruginea*; the names of these species must consequently be changed on the score of priority.

would be at once to erect the group into a distinct genus, as I do not conceive that the progress of science is likely to be so much impeded by such a proceeding, and the consequent imposition of a new name to indicate an intermediate type, as by a withholding of truth and misrepresentation of facts, in order to diminish the extent of one's labours; though in this, as in several other instances, I have merely called attention to the points, without proceeding to designate such discordant insects by a new generic name; leaving that open for my successors.

GENUS CXXXV.—GORTYNA, *Ochsenheimer*.

Palpi short, slightly ascending, the basal joints clothed with long hair-like scales, the terminal exposed, ovate obtuse, the basal joint curved upwards and attenuated at the apex; the second elongated, somewhat attenuated, the terminal rather short, subovate, obtuse: *maxillæ* slender and very short. *Antennæ* simple in both sexes, pubescent beneath: *head* rather small, with a dense tuft before the antennæ: *eyes* globose, naked: *thorax* subquadrate, with a compressed acute crest in front: *abdomen* elongated, the sides producing fascicles of scales, robust in the females, and obtuse at the apex, which is rather broad, and has a subquadrate tuft in the males: *wings* deflexed when at rest; *anterior* triangular, slightly emarginate at the apex; *cilia* of all a little indented. Caterpillar fleshy, slightly hairy, radicivorous: pupa internal.

The elongated robust abdomen of this genus, with the short palpi and maxillæ, the broad, triangular, slightly indented, anterior wings, and the dissimilar palpi, are good characters of discrimination from the preceding, from which the habits of the larvæ (which are either internal feeders or radicivorous) also remove them.

Sp. 1. micacea. *Alis anticis rufescentibus, stigmatibus fasciâque externâ dilutioribus; posticis albidis, strigâ pone medium fuscâ.* (Exp. alar. 1 unc. 3—7 lin.)

No. micacea. *Esper*.—Go. micacea. *Curtis*, vi. pl. 252. *Steph. Catal. part ii. p. 99. No. 6326.*

Head and thorax rufescent, sometimes with a rosy tinge; anterior wings the same, with an undulated striga at the base; a second before the middle, angulated towards the costa; and a third oblique one behind the middle; the space between the two last being of a deeper or fuscous hue, and bearing the stigmata, which are paler, and have their margins faintly edged with fuscous; the hinder margin of the wing, from the third striga, is paler than the rest, and has a very obscure waved fuscous striga, with a paler exterior margin; and the margin of the wing itself has a slender brownish line; cilia ashy-

brown, tinted with rosy: posterior wings whitish, with a striga behind the middle, and a central lunular spot dusky; cilia rosy.

It varies much in colour; sometimes the rosy tint is wanting; at others, it is very brilliant.

Caterpillar flesh-colour, with minute black dots, with a reddish dorsal line, and a pale lateral streak; the extremities flavescent:—it feeds on bulbous roots:—the imago appears about the middle of July or beginning of August.

Not very common: it has however been taken very frequently in the vicinity of London: and in abundance near Cork; it also occurs in Norfolk, Devonshire, and in the New Forest.

Sp. 2. *flavago*. *Alis anticis aureo-flavis atomis brunneis adpersis, fasciis duabus rufo-fuscis, stigmatibus flavis.* (Exp. alar. 1 unc. 4—7 lin.)

No. *flavago*. *Wien. V.*—Go. *flavago*. *Steph. Catal. part ii. p. 99. No. 6327.*

Head reddish-brown, with a flavescent cloud on the forehead: thorax the same, with four ill-defined ferruginous spots, two in front, and the others laterally on the disc: anterior wings of a rich golden-yellow, with an irregular rufous-brown fascia near the base, accompanied on each side with an imperfect ferruginous striga; on the hinder margin is a similarly coloured but broader fascia, margined anteriorly with a dentated ferruginous striga, composed of obsolete lunular spots, and exteriorly with an irregular flavescent fascia, thickly irrorated with rufous-brown, except at the apex; between the fasciæ the ground colour of the wings is thickly sprinkled with reddish-brown scales, and between the stigmata is an indistinct rusty-brown striga; the stigmata are of a brighter yellow, the anterior waved with a slight ferruginous central cloud, the posterior ear-shaped, with two somewhat lunular ferruginous clouds, frequently confluent: there is also a third stigma, of a parabolic form, placed between the anterior one and the inner margin, and united to the ferruginous striga which accompanies the fuscous fascia on the outside; cilia rufo-fuscous: posterior wings somewhat ochraceous, with a central lunular spot, a striga behind the middle, a marginal fascia, and the cilia fuscous.

Slightly variable in colour, some specimens being of a paler hue than others.

Caterpillar dirty-white, spotted with black, the first and last segments black; head yellowish brown;—it feeds on the pith of the burdock; and also subsists

†Sp. 3. *luteago*. *Alis anticis flavis stigmatibus pallidioribus, strigis duabus dentatis maculisque nebulosis fuscis.*

No. *luteago*. *Wien. V.*—*Samonelle (!)*—Go. *luteago*. *Steph. Catal. part ii. p. 99. No. 6328 note.*

Size of *Xanthia citrigo*: antennæ ferruginous, with a white shaft: anterior wings flavescent, with two very much dentated fuscous strigæ in the middle, approximating towards the inner margin, where they nearly unite: posterior wings whitish.

on *Verbascum thapsus*, *Scrophularia aquatica*, and *Sambucus nigra*, according to Ochsenheimer:—the imago is found about the middle of September.*

Not uncommon in places where the burdock abounds; its presence may be detected by the appearance of the plants, which when attacked by the larvæ droop and look sickly. “Alderley.”—*Rev. E. Stanley*. “York and Halifax.”—*W. C. Hewitson, Esq.*

GENUS CXXXVI.—NONAGRIÆ, *Ochsenheimer*.

Palpi nearly vertical, very thickly clothed with elongate scales on the two basal joints, the terminal one exposed, with the scales rather elongated beneath; basal joint reniform, nearly horizontal, stouter than the following, and above half its length; the second rather elongate, straight, acuminate: the terminal very short, ovate: *maxillæ* moderate. *Antennæ* rather short, stout, subserrated, sometimes slightly pectinated in the males, pubescent beneath: *head* small, subtriangular, with a dense tuft of scales on the forehead: *eyes* large, globose, naked: *thorax* rather stout, slightly crested anteriorly: *abdomen* elongated, not very robust, with a large tuft at the apex, especially in the males: *wings* deflexed during repose; *anterior* elongate, narrow, slightly crenated on the hinder margin; *posterior* somewhat triangular, faintly denticulate. Larva fleshy, internal: pupa internal.

The larvæ of the Nonagriæ, like those of the preceding genus, reside within the stems of plants, and subsist upon their internal substance; but the imago differs materially from that of *Gortyna*, especially in the form of the anterior wings, which are strongly nervose, and slightly crenated; by which character they differ considerably from the insects of the following genus, in which that part is entire; the antennæ, especially in the males, are much stouter and more pilose, and the thorax is much less crested.

Sp. 1. Typhæ. *Alis anticis rufescente-fuscis albo venosis, punctis lunulisque marginalibus nigris, posticis albidis margine fuscis.* (Exp. alar. 1 unc. 9 lin. —2 unc.)

Ph. Noc. Typhæ. *Esper.*—Non. Typhæ. *Steph. Catal. part ii. p. 100. No. 6329.*

Head and thorax pale fuscous, sometimes with a reddish tinge; anterior wings dull reddish-brown, with the nervures distinct and pale towards the hinder margin, the discoidal one dilated and margined with deeper fuscous; at the base of the wing is a deep fuscous spot, and on the disc are some irregularly disposed smaller ones, with a distinct row of slightly elongate lineolæ towards the hinder margin, which latter has a series of fuscous lunular marks, in-

* Erroneously inserted as an indigenous species in the Entomologist's Compendium: it is a native of Hungary and Russia.

interrupted by the white nervures; on the costa are some dusky spots towards the base, and three or four whitish ones near the apex: posterior wings whitish, with a central mark, and the hinder margin fuscous, and on the margin itself a row of blackish lunules; cilia slightly ochraceous.

Caterpillar green, spotted with black, with a palish lateral line; it feeds on the pith of the *Typha latifolia*:—the imago is produced about the middle of August.

Not very uncommon, where the bulrush abounds: in Battersea-fields and near Edmonton, and in several other parts of the metropolitan district, specimens have been captured. “Allesley.”—*Rev. W. T. Bree*. “Epping.”—*Mr. H. Doubleday*.

Sp. 2. pilicornis. PLATE 29. f. 1.—*Alis anticis cinereo-rufescentibus, vix atomosis strigâ posticâ curvatâ ex punctis obsoletis fuscis; posticis albis.* (Exp. alar. 1 unc. 11 lin.)

Noc. pilicornis. *Haworth*.—Not. pilicornis. *Steph. Catal. part ii. p. 100. No. 6330.*

Head and thorax pale, immaculate, hoary-ash; anterior wings of a pale reddish-ash, very sparingly irrorated with black, the margins of the nervures of a darker hue, and the intermediate areolets whitish in the centre, giving the wing a faintly striated appearance; towards the hinder margin is a faint series of larger fuscous dots, six or seven in number; cilia whitish-ash: posterior wings white, with a few scattered black atoms, and a darker central cloud: abdomen hoary-ash, with a rufescent tinge, and a little irrorated with black.

In Mr. Hatchett's collection is a single example of this fine insect, which may possibly be merely the other sex of the following; and I possess a specimen which was taken in September, 1826, I believe, near Croydon.

†Sp. 3. crassicornis. *Alis (anticis) cinereo-rufescentibus, strigâ obsoletâ punctorum fuscorum; posticis fuscis.* (Exp. alar. 1 unc. 11 lin.)

Noc. crassicornis. *Haworth*.—Not. crassicornis. *Steph. Catal. part ii. p. 100. No. 6331.*

Size of the foregoing, of a dull somewhat reddish-ash: anterior wings veined, as it were, with subfulvous, white and cinerous, with numerous minute fuscous atoms, and about six larger ones towards the posterior margin, placed in an arcuated line; abdomen stout, large, with the apical tuft large and lutescent; posterior wings fuscous, with the cilia lutescent: antennæ stout, thick, and hairy.

The only specimens I have seen of this species (which chiefly differs from the foregoing by having the anterior wings more thickly irrorated with fuscous, and the posterior ones entirely of that colour) have been captured in Norfolk. In my Catalogue, I have in-



advertently given the preceding as a desideratum to my cabinet, instead of the present species.

†Sp. 4. Cannæ. *Alis anticis flavo-rufescentibus serie unicâ maculâque obsoletâ in medio nigris.* (Exp. alar. 1 unc. 8 lin.)

No. Cannæ. *Ochsenheimer.*—*Steph. Catal. part ii. p. 101. No. 6332.*

Head and thorax pale reddish, or yellowish-ash; anterior wings the same, with a few minute dusky atoms, with some larger spots at the base, and a row still more distinct towards the hinder margin, and forming an arcuated striga: in the middle of the disc is a single spot of similar hue: posterior wings reddish or yellowish-ash.

There is a single example of this species (which is much smaller than either of the foregoing) in the collection of Mr. Stone, captured near Scarborough: and I believe there is a second in that of Mr. Haworth, taken by him near Hull.

GENUS CXXXVII.—LEUCANIA, *Ochsenheimer.*

Palpi rather short, considerably bent upwards, approximating, the basal joints with elongate compact scales, the terminal exposed and nearly denuded, obtuse; basal joint slightly bent, horizontal, second vertical, as long again as the first, slightly bent at the base, and a little attenuated at the apex; terminal slender, elongate-ovate: *maxillæ* moderate. *Antennæ* simple in both sexes, thickly ciliated beneath, especially in the males: head small, subtrigonal: *eyes* globose, large, pubescent, rarely naked: *thorax* rather stout, woolly, not crested: *abdomen* slightly elongate, carinated, rather slender in the males, with a large tuft at the apex, stouter, and somewhat conic in the females: *wings* incumbent during repose; *anterior* rather narrow, the hinder margin entire, the apex acute; *nervures* distinct, apparently elevated. Larva slightly pilose: pupa folliculated.

Exclusively of other characters, Leucania may be known from Nonagria, by the integrity of the hinder margin of the anterior wings; the insects are generally of much smaller size; and their larva are not internal feeders, but they are pilose, and subsist upon leaves; the pupa being folliculated.

Sp. 1. Comma. *Alis cinereis, anticis lineolâ baseos serieque punctorum nigrorum margine externo nigris, venis albis.* (Exp. alar. 1 unc. 5—6 lin.)

Ph. No. Comma. *Linné.*—*Le. Comma.* *Steph. Catal. part ii. p. 100. No. 6333.*

Head and thorax pale fuscous-ash, with a rufescent tinge, the latter with a transverse darker streak in front, and a few scattered black atoms: anterior wings cinerous or pale fuscous, the costa whitish at its base nearly to the apex;

at the base is a distinct deep black streak, nearly half the length of the wing, and towards the base of the inner margin is a second minute one parallel with the first, and sometimes nearly obliterated: the nervures are white, and between them at the apex of the wing other black lineolæ are interposed; and on the hinder margin of the wing itself is a row of minute black dots; at the apex of the discoidal areolet, in place of the posterior stigma, is a large black dot: cilia pale fuscous: posterior wings fuscous, with the base whitish.

This species varies a little in the intensity and colour of its markings.

Caterpillar naked; above dirty reddish-brown, with black spots, with three slender black dorsal streaks, the anterior segment black, with three white lines;—it feeds on the common sorrel (*Rumex acetosa*):—the imago appears towards the beginning of July.

Not very common: it has been captured near Dartford; also in the neighbourhood of Coombe-wood, and near Hull in Yorkshire. “Dublin.”—*N. A. Vigors, Esq.* “Common in gardens, near Epping.”—*Mr. H. Doubleday.*

Sp. 2. littoralis. *Alis anticis ochraceis, lineâ mediâ trifurcatâ nigrâ aut fuscâ marginatâ, venisque aliquot albis; posticis albis.* (Exp. alar. 1 unc. 6—7 lin.)

Le. littoralis. *Curtis, iv. pl. 157.*—Le. littoralis. *Steph. Catal. part ii. p. 100. No. 6334.*

Head and thorax pale immaculate ochraceous; anterior wings pale ochraceous, sometimes with an ashy or rufescent tinge, with a distinct longitudinal white line arising at the base and terminating at the apex, margined above half way with black, and the rest with fuscous; this line passes over the principal nervure, gives off a slight twig interiorly, a little behind the middle, and shortly after becomes bifid; the nervures at the apex of the wing are also more or less white, with fuscous streaks between; cilia pale fuscous, interrupted with whitish: posterior wings white: abdomen pale ochraceous, with its base whitish.

Some specimens are rather fuscous, and the fuscous streaks between the nervures vary considerably.

The first example of this species was captured on the coast near Christchurch, in Hants, which remained unique for a considerable period; in 1827, Mr. Weaver took several specimens, I believe, on the coast of Cumberland, whence it may be presumed to be a maritime species.

†Sp. 3. obsoleta. *Alis anticis flavido-fuscis puncto medio venisque albis, strigâ margineque externo nigro-punctatis.* (Exp. alar. 1 unc. 6—7 lin.)

No. obsoleta. *Hübner.*—La. obsoleta. *Steph. Catal. part ii. p. 100. No. 6335.*

Head and thorax pale reddish-brown or cinereous: anterior wings yellowish-brown or reddish, with a dot in the middle and the nervures white, the latter with a few darker lineolæ between, towards the apex, as in its congeners; a little

behind the middle is a distinct row of black dots, forming an arcuated striga; and on the posterior margin itself is a second row of similar but smaller spots; cilia slightly flavescent: posterior wings ashy-gray, with the apex whitish, the margin with a few small black dots; cilia whitish.

Very rare: there are specimens in the British Museum, of which I know not the locality; but a single example, apparently of this species, was captured by Mr. Chant at the end of Britannia-street, City-road, leading to the fields, about three years since, in June.

Sp. 4. *impura*. *Alis anticis fusco-flavidis, venis postice albidis punctis tribus nigris, posticis fusco-griseis.* (Exp. alar. 1 unc. 4—5 lin.)

No. *impura*. *Hübner*.—*Le. impura*. *Steph. Catal. part ii. p. 100. No. 6336. Albin, pl. xxxiii. f. 53. e—h.*

Head and thorax pale immaculate flavescent or ochraceous-brown; anterior wings the same, or slightly rufescent, with the nervures whitish, and the intervals at the apex striated as it were with lighter and darker shades of fuscous and cinereous; rather beyond the middle are three conspicuous black dots, placed in a triangle, and on the margin itself is a row of extremely minute ones, which are sometimes completely obliterated, and are rarely continuous, one or more being generally wanting: posterior wings deep fuscous, with a darker central lunule; cilia pale.

Var. β . Anterior wings with a conspicuous transverse striga, composed of irregular black dots towards the posterior margin, and a blackish imperfect lineola at the base.

Caterpillar dull straw-colour, with a few black specks, a slender dorsal line, and a dirty yellowish lateral streak;—it feeds on carices:—the imago abounds in the middle of July.

Extremely common in every woody place and thicket throughout the metropolitan district, and I believe equally abundant in other parts of the country:

Sp. 5. *punctina*. *Tota rufescens, alis anticis ipso margine postico fusco punctatis, posticis pallidis angulum ani versus latissimè cinereis.* (Exp. alar. 1 unc. 5—6 lin.)

No. *punctina*. *Haworth*.—*Le. punctina*. *Steph. Catal. part ii. p. 100. No. 6337.*

Too closely allied to the preceding: differs in being entirely rufescent, with a distinct row of black dots on the hinder margin of the anterior wings; with the posterior wings pale, but the inner margin broadly cinereous towards the anal angle.

Mr. Haworth says—"Of this I have seen but two specimens; had it occurred as frequently as the last (*Le. impura*), I should have supposed its difference from that species merely a sexual one,"—in which opinion I fully coincide.

Found near London, with the foregoing.

Sp. 6. *arcuata*. *Alis anticis pallidè stramineis, punctis duobus nigris medio, posticis albis cinereo-infuscatis serie arcuatâ punctorum fuscorum pone medium.* (Exp. alar. 1 unc. 5 lin.)

Le. *arcuata*. *Steph. Catal. part ii. p. 101. No. 6338.*

Head and thorax pale straw-colour, the latter rather darker in front; anterior wings the same, appearing obscurely striated with rufescent, the nervures being of the former colour, and the intervals being rufescent, with two straw-coloured streaks, united at their origin; on the disc are two conspicuous black spots, one placed at the bifurcation of the interior discoidal nervure, the other between that and the hinder margin of the wing; the hinder margin immaculate; cilia reddish straw-colour; posterior wings white, slightly tinted with cinereous towards the hinder margin, with an arcuated series of black or fuscous spots, a little behind the middle, each spot being placed upon a nervure; cilia white.

I captured two specimens of this species at Ripley, in the beginning of July, 1827.

Sp. 7. *pallens*. *Alis anticis pallidè rufescentibus venis albis, punctis tribus aut quatuor nigris, posticis albidis.* (Exp. alar. 1 unc. 5—6 lin.)

Ph. No. *pallens*. *Linné*.—Le. *pallens*. *Steph. Catal. part ii. p. 101. No. 6339*

Head and thorax pale-reddish, with a brown tinge, anteriorly: anterior wings rufescent, with the nervures white, and the intervals with two pale ochraceous striæ, as in the preceding species: rather behind the middle are three black dots, placed in a triangle, and occasionally towards the costa is a fourth; posterior margin immaculate; cilia pale-reddish: posterior wings whitish, with an obscure fuscous shade in certain positions; cilia white: abdomen pale-rufescent, with the base paler or whitish.

Caterpillar dusky, with paler dots, and four whitish streaks:—it feeds on the common sorrel and the chickweed (*Alsine media*):—the imago is produced about the middle of July.

Not uncommon in hedges, gardens, on the borders of woods and in shady lanes throughout the metropolitan district. “Rockcliff, Durdan, &c., Cumberland.”—*T. C. Heysham, Esq.* “Epping.” *Mr. H. Doubleday.*

Sp. 8. *rufescens*. *Alis anticis rufescens, immaculatis, posticis albidis venis certo sitû fuliginosis.* (Exp. alar. 1 unc. 5—6 lin.)

No. *rufescens*. *Haworth*.—Le. *rufescens*. *Steph. Catal. part ii. p. 101. No. 6340.*

Pale-rufescent; head and thorax anteriorly rather brownish: anterior wings immaculate, with the nervures very pale; the intervals as in the preceding species, with two pale streaks; the hinder margin and the disc immaculate; cilia rufescent: posterior wings whitish, with the nervures in certain lights, and a cloud towards the hinder margin fuscous; cilia white.

Var. β . The anterior wings with two or three obsolete pale fuscous streaks; the posterior more distinctly clouded with fuscous.

Not uncommon; frequenting the same haunts with the last; of which I suspect it may be only a variety.

Sp. 9. *suffusa*. *Alis anticis rufescentibus cinereo-striatis, puncto medio lineolisque dualibus obsoletis fusciscentibus; posticis albidis nebula fuscâ.* (Exp. alar. 1 unc. 5 lin.)

Leu. *suffusa mihi*. Steph. Catal. part ii. p. 101. No. 6341.

Head and thorax immaculate, reddish-ochraceous: anterior wings rufescent, with the nervures and two intermediate lines pale or whitish-ash; with a single discoidal spot of a more or less deep fuscous, and two or three obscure longitudinal fuscous streaks towards the hinder margin, which is immaculate; cilia pale rufescent, slightly interrupted with pale at the base, the apex immaculate: posterior wings whitish, with a broad undefined fuscous cloud towards the hinder margin, the latter immaculate; cilia ochreous-white: abdomen the same, with the base paler.

Of this species, which appears very distinct, several examples have been taken by Mr. Stone, near Limehouse and in the Isle of Dogs; I met with a solitary specimen at Ripley, in June, 1827, and possess one from the collection of the late Mr. Griffin, which was captured in Norfolk.

Sp. 10. *ochracea*. *Alis anticis pallidè ochraceis, immaculatis, obsoletissimè fusciscentis striatis, posticis albidis cinereis margine saturatiore.* (Exp. alar. 1 unc. 1 lin.)

Considerably smaller than either of the foregoing: head and thorax pale ochraceous, immaculate; anterior wings the same, with a slightly rufescent tinge in certain lights, and immaculate, obscurely striated with pale fuscous between the nervures, the striæ at the base and on the inner margin being darkest, as in *Le. Comma*; cilia pale immaculate ochraceous: posterior wings whitish-ash, with the margin slightly darker; cilia white.

In size, this species resembles some of the following species, but may be readily distinguished from them by the pubescence of its eyes, by the anterior wings not being irrorated with fuscous or black, and by the paleness of its posterior wings.

I possess a pair of this species, which is very dissimilar to either of the foregoing: one was taken at Darent-wood at the end of August, about ten years since; the other on the borders of Whittlesea-mere, in September, 1824.

Sp. 11. *fluxa*. *Alis anticis fusco-rufescentibus, atomis venisque nigricantibus, posticis fusciscentibus; oculis nudis.* (Exp. alar. 1 unc.—1 unc. 1 lin.)

No. *fluxa*. Hübner.—*Le. fluxa*. Steph. Catal. part ii. p. 101. No. 6343.

Head and thorax reddish-white or fulvous; anterior wings the same, sparingly irrorated with dusky or black; with an undefined cloud on the costa, a more

distinct longitudinal striga passing over the discoidal nervure, and an imperfect one at the base of the inner margin, with all the nervures at the tip of the wing also dusky or black; on the hinder margin itself is sometimes an indistinct line of minute dots; cilia fulvescent or cinereous: posterior wings fuscous, with the base and costa somewhat cinereous; cilia fulvescent or ochraceous: abdomen reddish or whitish-ash: antennæ fulvescent.

This and the four following species differ from the rest of the genus in having the eyes naked, and the terminal joint of the palpi more slender and acute, the thorax more woolly, and in being of a smaller size: they also occur later in the season, and affect marshy districts.

The chief locality of this species is on the borders of Whittlesea-mere, where the insect has been taken in tolerable plenty, at the end of July; specimens have also been captured in Battersea-fields.

Sp. 12. *pygmina*. *Alis anticis rufescentibus margine antico ciliisque saturatoribus, posticis fusciscentibus; oculis nudis.* (Exp. alar. 10 lin.—1 unc.)

Leu. *Phragmatidis*. *Steph. Catal. part ii. p. 101. No. 6344.*—No. *pygmina*. *Haworth?*

Head and thorax pale rufescent, immaculate; anterior wings also rufescent, with a hoary cast, very faintly clouded on the costa with darker atoms, and the same on the disc and nervures at the apex of the wing; cilia rather brighter than the rest of the wing, immaculate: posterior wings pale fuscous, with the costa paler; cilia ochreous or rosy: abdomen whitish, with the apical tuft ochraceous.

Smaller than the preceding, with the anterior wings considerably narrower, and of a much paler hue: it occurs rather later in the season; appearing about August, and continuing till the middle of September.

Not common; found in Battersea-fields and near Hertford; also in the marshes near Hackney, and in the neighbourhood of Coombe-wood.

Sp. 13. *pallida*. *Alis anticis ochraceo-albidis, immaculatis, venis ad apicem atomis nigris minutissimis sparsis, posticis albidis; oculis nudis.* (Exp. alar. 9 lin.)

Le. *pallida mihi*. *Steph. Catal. part ii. p. 101. No. 6345.*

Head and thorax pale hoary-white; anterior wings of an ochraceous-white, with the costa and central nervure obscurely fuscous, and the nervures towards the apex very sparingly sprinkled with extremely minute fuscous atoms, and a more compact patch of the same in the hinder margin near the apex of the costa; cilia white: posterior wings whitish, with a slight ashy tinge towards the hinder margin; cilia white: abdomen and apical tuft hoary-white.

Differs from the foregoing in its smaller size, and in the almost total absence of spots or markings on the anterior wings, and by the posterior ones being nearly of a pure white.

I possess one specimen only, which was given to me by my late friend Mr. Blunt, who captured the insect in the marshes near West Ham, in Essex.

Sp. 14. *Neurica*. *Alis anticis ochraceo- aut fusco-rufescentibus, strigâ posticâ punctorum minutissimorum fuscorum; posticis cinerascentibus; oculis nudis.* (Exp. alar. 10—11 lin.)

No. *Neurica*. *Hübner?*—*Le. Neurica*.—*Steph. Catal. part ii. p. 101. No. 6346.*

Head and thorax pale immaculate white or rufescent: anterior wings ochraceous or pale fusco-rufescent, with a bifid fuscous cloud at the base, enclosing a whitish space; the nervures, especially towards the apex, slightly fuscous; a little behind the middle is an arcuated series of minute fuscous or blackish dots; cilia pale rufescent or ochraceous, slightly clouded with fuscous at the apex: posterior wings pale whitish-ash, with the hinder margin rather darker, or obscurely fuscous: cilia rufescent or whitish; abdomen the same.

The arcuated striga of minute fuscous dots on the anterior wings, and the paleness of the posterior ones, sufficiently characterize this species.

Of this insect I have seen but two specimens (the sexes); one of which was captured in the marshes near Lea-bridge, and the other was found near Whittlesea-mere.

† Sp. 15. *geminipuncta*. *Alis anticis rufo-fuscescentibus, vittâ latâ rufâ marginis tenuioris, punctoque parvo geminato niveo loco stigmatis postici; posticis fuscis.* (Exp. alar. 10—11 lin.)

No. *geminipuncta*. *Haworth*.—*Le. geminipuncta*. *Steph. Catal. part ii. p. 101. No. 6347.*

Head and thorax pale immaculate rufescent, sometimes with a fuscous hue: anterior wings the same, with a broad brighter rufescent streak on the inner margin, reaching nearly to the apex; on the nervures, towards the apex especially, are a few dusky atoms; and in place of the usual posterior stigma are two minute white or snowy spots; cilia rufescent: posterior wings fuscous, with the cilia pale ochraceous; abdomen whitish; antennæ rufous.

Of this remarkably conspicuous species, I have hitherto seen but four specimens: two of which are in the collection of Mr. Hatchett, who captured them in the marshes near the Temple Mills, in the autumn; the third is in the British Museum, and the fourth in the collection of G. Milne, Esq.

Sp. 16. *pudorina*. *Alis anticis fusco-rufescentibus, atomis nigris adpersis, striâ longitudinali obscuriore.* (Exp. alar. 1 unc. 7—9 lin.)

No. *pudorina*. *Wien. Verz.*—*Leu. pudorina*. *Steph. Catal. part ii. p. 101. No. 6348.*

Head and thorax pale hoary rufescent, the latter very woolly and paler behind: anterior wings pale rufescent, with a fuscous tinge, the latter produced by the wings being longitudinally clouded and sparingly irrorated with pale fuscous; from the base nearly to the middle of the hinder margin a deeper and more distinct longitudinal fuscous stria extends, and, in some examples, a second, somewhat parallel, between it and the inner margin; at the base of the wing is also an obscure streak, and some others between the nervures, which are more or less of an ochraceous tinge, at the apex; cilia immaculate rufescent: posterior wings fuscous, with a reddish hue towards the margin; cilia rufescent: abdomen ochraceous, with the lateral and anal tufts rufescent. Caterpillar dirty whitish-yellow, with a slender white dorsal line and a whitish dusky one on each side: head brown.

This larger and conspicuous species was, I believe, unknown to British collectors before 1821, when a single example was captured in June of that year, in the New Forest; and in the subsequent season many specimens were taken on the borders of Whittlesea-mere; where the insect has frequently occurred since.

† Sp. 17. *impuncta*. *Alis (anticis) rufescentibus griseo-atomosis, lineolâ obliquâ fuscâ apicis, punctoque minutissimo albo basi stigmati postici.* (Exp. alar. 1 unc. 8? lin.)

No. *impuncta*. *Haworth.*—*Le. impuncta*. *Steph. Catal. part ii. p. 101. No. 6350.*

Rather less than *Nonagria crassicornis*: the anterior wings rufescent, sprinkled with griseous, with an oblique fuscous streak at the apex, and a minute white spot in the place of the base of the posterior stigma: head, thorax, and antennæ rufescent; abdomen pale ash: posterior wings pale fuscous; cilia rufescent.

This insect differs considerably in appearance from the rest of the genus, the anterior wings being more acute than in the foregoing, and the stigmata being somewhat visible.

The only example I have seen of this species was in the collection of the late Mr. Francillon, and now enriches the fine one of Mr. Haworth; of its locality I am not aware:—I have seen foreign specimens resembling it, but it does not appear to have been recorded by continental writers.

GENUS CXXXVIII.—SIMYRA, *Ochsenheimer*.

Palpi rather short, slightly ascending, somewhat approximating, and very acute at the apex, or parallel and slightly acute, the basal joints clothed with woolly hairs, the terminal scarcely exposed; basal joint as long as the terminal, subovate, stout; second equal in length to the other two, slender; terminal, elongate, slender, acute: *maxillæ* short. *Antennæ* simple in both sexes, of the male stout, and pubescent within: *head* small: *eyes* small, naked: *thorax* rather stout, woolly, not crested: *abdomen* moderate, more robust in the females, the sides and apex producing some tufts of hair: *wings* entire, deflexed during repose; the *anterior* simple, not very long, broad, elongate-triangular, somewhat retuse, or sublanceolate, with the apex acute, the surface suffused with dusky atoms: *legs* moderate, *anterior tibiæ* in the males with a long spur. *Larva* pilose; pupa enclosed in a papyraceous web.

Simyra, although it contains three indigenous species only, is nevertheless an artificial genus, and will doubtless some day be divided; *Si. maculosa* differing so considerably in habit from its present congeners, its wings being very glossy, the anterior somewhat abbreviated, broad, elongate-triangular, slightly retuse, and repanded on the hinder margin, with its palpi approximating and very acute; whereas in the others the wings are but little shining, very acute at the apex, and sublanceolate; the palpi less acute and parallel: the larva of *Si. venosa* forms a strong papyraceous web, in which it undergoes its change to pupa, as does also that of *Si. nervosa*; but of the metamorphosis of the other species I am unacquainted.

Sp. 1. *musculosa*. *Alis anticis ochraceis tincturâ virescentibus immaculatis, venis pallidioribus, posticis fusciscentibus margine saturatiore.* (Exp. alar. 1 unc. 3—4 lin.)

No. *musculosa*. *Hübner*.—*Si. musculosa*. *Steph. Catal. part ii. p. 102. No. 6350.*

Head and thorax hoary-ochraceous immaculate, the latter with a greenish-brown tinge; anterior wings plain immaculate ochraceous, with a greenish-brown cast, the base palest, and the hinder margin darkest; the nervures, towards the hinder margin especially, paler than the wing, and in fine specimens slightly tinted with greenish; cilia fusciscent, or brownish: posterior wings fusciscent, with the base and nervures paler, the surface minutely irrorated with fuscous atoms; cilia ochraceous-brown. Female of a paler hue.

This plain insect differs a little in colour, some examples being much darker and more virescent than others.

Till within these few years one or two examples only of this insect were known: they were captured, I believe, on the borders of Ramsey-mere; but many specimens have been taken recently on the shores of Whittlesea and Yaxley meres, whence the insect would appear to affect marshy districts: the female seems to be much rarer than the male.

Sp. 2. *venosa*. *Thorace alisque anticis canis, aut ochraceis, his albo-venosis lineis tenuissimis fuscis; posticis albis.* (Exp. alar. 1 unc. 6—8 lin.)

No. *venosa*. *Borkhausen*.—*Si. venosa*. *Steph. Catal. part ii. p. 102. No. 6351.*

Head and thorax pale hoary-white or ochraceous, the latter sometimes with a faint dusky transverse line before the middle; anterior wings also pale-hoary or ochraceous, thickly sprinkled with minute black atoms, with a more or less distinct dusky or black lineola from the base nearly to the middle, and a faint one near the apex, and frequently two or three others towards the hinder margin, running parallel with the nervures; on the hinder margin itself, towards the apex, are occasionally one or two black dots; the cilia are pure white: posterior wings and abdomen immaculate white.

Var. β . Anterior wings without the longitudinal dark lineolæ.

Var. γ . Anterior wings ochraceous-ash, with the base of the costa hoary, and the cilia ochraceous-brown; the disc not irrorated with black, and the dark lineolæ wanting.

Caterpillar very hairy, yellowish above, with spots and dots of rufous, fuscous, and black, a yellow lateral line interrupted with brown dots:—it feeds on Carices:—the pupa is black-brown, and enclosed in a strong papyraceous cocoon:—the imago appears about the middle of June.

Apparently not very uncommon in the fenny districts of Huntingdonshire and the north of Cambridgeshire, numerous examples having been captured on the borders of Whittlesea-mere, and one or two near Wisbeach. I am not aware of its having been found in any other locality.

Sp. 3. *nervosa*. *Alis anticis sublaceolatis cinereo-fuscis pallidè striatis, posticis cinereis venis fuscescentibus.* (Exp. alar. 1 unc. 3—4 lin.)

No. *nervosa*. *Wien. Verz.*—*Si. nervosa*. *Steph. Catal. part ii. p. 102. No. 6352.*

Head, thorax, and abdomen immaculate hoary-white; anterior wings pale-ashy- or hoary-brown, with paler or whitish longitudinal streaks following the direction of the nervures, which latter are fuscescent; cilia the same; posterior wings pale cinereous, with minute darker atoms, the nervures brownish.

The caterpillar feeds on the elm:—the imago appears in June.

Leucania pudornia is sometimes erroneously placed in collections for this species.

Very rare: I have as yet seen but three specimens: one in the collection of Mr. Haworth, captured by the late Rev. J. Burrell, in Norfolk; a second in that of Mr. Pittard, taken by him near Darenth-wood; and a third in my own, found, I believe, in the same neighbourhood as the last.

GENUS CXXXIX.—PHLOGOPHORA, *Treitschke*.

Palpi rather large, ascending, clavate, compactly clothed with dense short scales; the terminal joint very minute, obtuse, exposed; basal joint reniform, stouter than the second, which is compressed, more than twice as long as the first, and acuminate at the apex; terminal minute, ovate-conic: *maxillæ* elongate. *Antennæ* rather long, slender, simple in both sexes, of the male finely pubescent within, and slightly serrated: *head* somewhat rounded, densely clothed with scales: *eyes* globose, naked: *thorax* stout, with an acute short crest in the centre anteriorly, and an elongate bifid one posteriorly: *wings* longitudinally wrinkled during repose; *anterior* elongate triangular, the posterior margin deeply indented, and excavated behind the middle; *posterior* ovate-triangular, slightly indented: *abdomen* rather short and slender, downy at the base, the sides and apex with pilose tufts, and a row of fascicles down the back.

Larva rather slender, naked, simple: pupa folliculated, the folliculus delicate, and placed on the earth.

Ochsenheimer includes Phlogophora in a division of the Hadenæ of Schrank; but his continuator, Treitschke, has formed it into a genus including Euplexia (before described) and several other continental species; but it is evident that if we are to consider metamorphosis and outline of any importance in the discrimination of Lepidopterous genera, as doubtless they are, it is impossible to associate the present genus either with Euplexia or Hadenæ. Phlogophora approximates in metamorphosis to Cucullia, though its affinity to Simyra is very remote; it agrees with Euplexia in folding the anterior wings longitudinally during repose, a posture assumed by no other indigenous genera of this family; and from that genus the present is at once distinguished with facility by the wings as well as the cilia, being deeply indented or notched; the anterior being elongate triangular, with a very deep excavation behind the middle of the posterior margin, reaching to the anal angle, and bearing three denticulations.

Sp. 1. *meticulosa*. *Alis anticis eroso-dentatis, pallidis, basi incarnatâ, fasciâ triangulari medio purpurascente*. (Exp. alar. 1 unc. 9 lin.—2 unc.)

Ph. No. *meticulosa*. *Linné. Wilkes, pl. 3.*—Ph. *meticulosa*. *Steph. Catal. part ii. p. 102. No. 6353.*

Head and thorax yellowish or greenish-white, the latter with fine transverse greenish-brown strigæ, with the apex of the dorsal tufts purplish: anterior wings pale rosy-white, the base more of a flesh colour, with a subdolabriform brownish spot on the inner margin; in the middle of the wing is a large somewhat triangular fascia, tinted with rosy; in this the stigmata are placed; they are rather indistinct, especially the posterior; the anterior is of a rosy hue, with the margin paler, and is united to the posterior, which is obliterated behind in the fuscous fascia; beyond which is a broad pale rosy space, terminating near the hinder margin in an olivaceous fascia, in which is a sublunate dusky or black streak near the apex, which is rosy; cilia olivaceous, with a brown tinge towards the anal angle: posterior wings whitish, with the nervures, a central lunule, and two or three, more or less distinct, strigæ behind the middle brownish; the margins somewhat ochraceous, with brownish cilia.

It varies very much in colour, and the ground of the anterior wings is sometimes of a rich purplish-red throughout.

Caterpillar green, or brownish, with a white dorsal and lateral line, the former interrupted:—it feeds upon various herbaceous plants:—the pupa is shining red-brown:—the imago appears towards the end of April, again in the middle or end of June, and a third brood in September.

A highly beautiful and extremely abundant species, frequenting gardens, hedges, woody and shady lanes, in most parts of the south of England; in profusion, in certain years, near Dover, especially in June, 1819. “York and Newcastle.”—*W. C. Hewitson, Esq.* “Black Hall, Cumberland.”—*T. C. Heysham, Esq.*

GENUS CXL.—CUCULLIA, *Schränk.*

Palpi short, thickly clothed with loose scales, inclining upwards, the terminal joint slightly exposed, obtuse; the basal joint longest, curved upwards, rather clavate, the second shorter than the first, slightly attenuated, terminal elongate-ovate, acute: *maxillæ* longer than the antennæ. *Antennæ* long, rather slender, simple in both sexes, with a tuft of hair at the base within: *head* small, rounded: *eyes* globose, naked: *thorax* with an acute crest anteriorly: *abdomen* elongate, carinated on the back, and generally with fascicles of hair; the apex with a larger tuft, frequently divided: *wings* deflexed; *anterior* lanceolate, acute at the apex, sometimes denticulated; *posterior* small, slightly emarginate. *Larva* naked: pupa enclosed in an earthen cell, lined with silk, the head-case produced.

Cucullia, with the exception of the two last species, consists of a very natural assemblage of insects, which are no less distinguished by the acuteness of their anterior wings and the elongation of their

bodies, than by the remarkable similarity which exists amongst the species, which in several instances approximate so closely, that were it not from experience as to their metamorphosis, periods of flight, &c. there are not wanting individuals who would consider them as mere varieties; but whoever has the opportunity, and will take the trouble, to consult the splendid works of Sepp, Hübner, Roësel, Engramelle, &c. will feel satisfied of their specific distinctions, without taking into consideration those minute characters, in the imago, that are readily seized by a practised eye.

A. Wings denticulated.

Sp. 1. *Scrophulariæ*. *Alis anticis ex albido flavis, marginibus fuscis; posticis albidis, fimbriâ fuscâ.* (Exp. alar. 1 unc. 8—9 lin.)

No. *Scrophulariæ*. Hübner.—Cu. *Scrophulariæ*. Steph. Catal. part ii. p. 102. No. 6354.—Ph. *Verbasci*. Wilkes, pl. 15.

Head ochraceous-brown, with paler streaks; thorax ochraceous, with the tip of the crest fuscous or brown, and the sides minutely spotted with the same; anterior wings of a whitish yellow, or pale ochraceous, the costa pale fuscous, with three white spots towards the apex, the inner margin also pale fuscous, with a pale mark towards the anal angle resembling the figure 3, the latter fuscous, with three or four flavescent streaks; the hinder margin is slightly streaked with pale fuscous, and bears a slender pale line parallel with its edge, and bordered exteriorly with darker fuscous; cilia ochraceous-brown: posterior wings whitish at the base, the nervures and hinder margin brownish: cilia whitish, slightly varied with brown: abdomen, with the dorsal tufts, deep brown, the sides clothed with ochraceous silken hairs.

Caterpillar greenish-white; the head yellowish; the back and sides with some black and yellow spots:—it feeds on the *Verbascum* and *Scrophularia*; and is found in the autumn, the imago appearing the following May.

Although considerably rarer than the following insect, this species is greatly dispersed throughout the country. I possess specimens captured near Cheltenham, and have seen others from Gloucester and Bristol. In September, 1821, I found the larvæ in profusion in Mr. Kirby's garden at Barham, feeding on a *Verbascum*, but unfortunately they perished during my journey home; other persons have also found the larvæ abundantly on Riddles-down, near Croydon, in the autumn, and have succeeded in rearing the imago, which is now contained in most collections, though formerly only in few.

Sp. 2. *Verbasci*. *Alis anticis medio ex flavido fuscis, marginibus obscurioribus; posticis fuscis, aut ochraceo-albidis fimbriâ nigricante.* (Exp. alar. 1 unc. 9 lin.—2 unc.)

Ph. No. Verbasci. *Linné*.—Cu. Verbasci. *Steph. Catal. part ii. p. 102. No. 6355. Albin. pl. xiii. f. 18.*

Similar to the preceding, but of a much darker colour: head varied with ochraceous and deep fuscous; thoracic crest ochraceous, with two transverse white streaks posteriorly, and its hinder edge deep fuscous; centre of the thorax also deep fuscous; sides pale ochraceous, rarely sprinkled with black atoms: anterior wings, with the costa, broadly deep fuscous, shaded gradually paler towards the disc, which is of an ochraceous or yellowish brown, sometimes of a cinereous tinge towards the anal angle on the posterior margin; a little before the middle is a faint deeply angulated pale transverse striga, edged exteriorly with fuscous, and behind the middle is an extremely obsolete indented striga, terminating in a distinct bilunate white or flavescent mark, resembling the figure 3, a little behind the middle of the inner margin; the space from which to the anal angle is of a deep, somewhat castaneous-brown, striated with ochraceous; the hinder margin is slightly striated with fuscous, and on its extreme edge are some lunular spots of the same hue, bordered with a pale line; cilia fuscous, with lighter shades and interrupted with whitish: posterior wings fuscous or ochraceous white, with the margin dusky; nervures brown; at the base of the cilia is a pale line; cilia ochraceous, clouded with brown: abdomen with a fuscous dorsal line.

This species is in general of a larger size and of a darker colour than the preceding; but examples occur of a pale ochraceous, with fuscous margins to the anterior wings.

Caterpillar cinereous or whitish, spotted with yellow and black:—it feeds on the various species of *Verbascum* about July:—the imago appears in the following April.

Not uncommon in the neighbourhood of Darent and Birch woods; and abundant in the larva state near Hertford: it is also far from rare throughout the metropolitan district. “Suffolk.”—*W. C. Hewitson, Esq.*

B. Wings entire.

Sp. 3. Asteris. *Alis anticis medio cinereis, marginibus castaneo-fuscis, exterioribus punctis tribus albis, stigmatibus ordinariis distinctis.* (Exp. alar. 1 unc. 10 lin.—2 unc.)

No. Asteris. *Wien. Verz.*—Cu. Asteris. *Curtis, i. pl. 45. Steph. Catal. part ii. p. 103. No. 6356.*

Head fuscous; thorax gray-brown, with pale-brown transverse streaks anteriorly, and a deep black one before the middle, the sides or petagiæ ashy-brown, spotted with black: anterior wings rather slender and very acute, of a cinereous hue, with delicate brown pencilings in the middle, the costa broadly chestnut brown, with about three distinct white spots near the apex, the inner margin deep brown, with a lunular whitish mark, edged with brown towards the anal angle, which latter is delicately streaked with whitish-ash and brown; on the hinder margin of the wing is a slender, somewhat interrupted, brown

line, and the cilia are cinereous, with a darker line towards the base; the stigmata are distinct, rather large and ovate, or elongate; they are rather paler than the wing, with a delicate interrupted brown border, and clouded disc: posterior wings ashy-brown, with the margin darker, and the nervures dusky; cilia whitish, with a yellowish-brown line at the base. The intensity of colour varies considerably in different specimens.

Caterpillar, with the head brownish, spotted with dusky, a broad yellow dorsal streak, beneath which is a narrower violaceous one, followed by a broad dirty green one, and a slender whitish-yellow one passing over the stigmata; the lower part of the body and legs green:—it feeds on the flowers of the *Solidago virgaurea*, and on various species of starwort (*Aster*):—the imago appears the beginning of July.

Not common: found occasionally in Darenth-wood, and on the borders of the downs near Croydon; it has also occurred near Fulham, and in Norfolk.

† Sp. 4. *Thapsiphaga*. *Alis anticis medio ex albido-cinereis, marginibus fusciscentibus, serie duplici punctorum nigrorum.* (Exp. alar. 1 unc. 10 lin.)

Cu. *Thapsiphaga*. *Treitschke?*—*Steph. Catal. part ii. p. 103. No. 6357.*

Head and thorax whitish-gray, the former brownish on the forehead, and the latter with some faint streaks of the latter colour: anterior wings long and slender, of a whitish-ash, the costa dusky or blackish, with some whitish spots near the apex; the inner margin is brownish, with an irregular whitish spot behind the middle, and a longitudinal blackish streak; the hinder margin is finely streaked with black, and has two rows of minute black dots; the cilia whitish-ash, with dusky or blackish shades: posterior wings whitish-brown, with the nervures darker; the cilia somewhat ochraceous, with a narrow brown line at the base.

In the British Museum is, I believe, a specimen of this species, which was captured in June, 1815, near Birch-wood, in Kent, and is the only indigenous example I have hitherto seen.

Sp. 5. *Umbratica*. *Alis anticis striatis canis, maculâ centrali ferrugineâ, lineolâ longitudinali nigrâ adjacentibus punctis nigris; posticis albidis, fusco venosis.* (Exp. alar. 1 unc. 8 lin.—2 unc.)

Ph. No. *Umbratica*. *Linné.*—*Don. viii. pl. 262. f. 2.*—Cu. *Umbratica*. *Steph. Catal. part ii. p. 103. No. 6358.*

Hoary-ash; head with dusky shades; thoracic crest transversely striated with dusky-ash, with a darker interrupted streak in front: anterior wings hoary, finely striated with cinereous and black, with a large somewhat ovate ferruginous cloud or spot rather beyond the middle, vanishing at its edges into the ground colour of the wing, and a distinct elongated black line at the base, beyond the apex of which, on the disc of the wing, towards the costa, are three or four distinct black spots, between which and the hinder margin is a faint

considerably waved dusky striga, obscurely edged with whitish exteriorly; hinder margin with an interrupted black line; cilia cinereous: posterior wings whitish, with the extreme edge and nervures fuscous; cilia white.

Caterpillar dusky, or bluish-gray, with three rows of orange-red spots:—it feeds on the *Sonchus oleraceus* and *S. arvensis*:—the imago appears towards the middle of July, and frequents low hedges; it varies considerably in colour.

This is decidedly the most common species of the genus, but it is nevertheless far from abundant; it occurs usually on open palings, secreting itself beneath the cross bars, and in such situations I have occasionally met with it, *Cu. Chamomillæ*, and *Cu. fissina* (which is probably a variety of the last), on Wimbledon-common, near Roehampton. “Netley, Salop.”—*Rev. F. W. Hope*. “York, and in Suffolk.”—*W. C. Hewitson, Esq.* “Epping.”—*Mr. H. Doubleday*.

Sp. 6. *Tanaceti*. *Alis anticis canis, lineolis duabus longitudinalibus atris; posticis albis margine fusco.* (Exp. alar. 1 unc. 8—10 lin.)

No. *Tanaceti*. *Wien. Verz.*—*Cu. Tanaceti*. *Steph. Catal. part ii. p. 103. No. 6360.*

Head cinereous: thorax the same, with a transverse fuscous striga on the fore part: anterior wings, slender, acute, hoary, or whitish-gray, with a slender black lineola at the base, reaching nearly to the middle, and a shorter one towards the middle, which is somewhat flexuous near its termination; towards the apex of the wing, on the hinder margin, are two or three abbreviated black streaks, the nervures are fuscous, and the spaces between cinereous, with dusky or hoary longitudinal streaks; on the hinder margin is an interrupted slender black line; the cilia are cinereous, with the base transversely streaked with a darker line, and the apex whitish: posterior wings nearly white, with the nervures and hinder margin dusky; cilia white.

Caterpillar cinereous, spotted with black, and lineated with yellow: it feeds on the tansy (*Tanacetum vulgare*), the wormwood (*Artemisia vulgaris*), chamomile, &c.:—the imago appears towards the end of July.

Not common; found occasionally in the woods near the metropolis; also in Norfolk, Suffolk, Devonshire, and North Wales.

Sp. 7. *Lactucæ*. *Alis anticis obscure cinereis, fusco obsoletè undatis, maculâ centrali sulferrugineâ; posticis fuscis, basi dilutioribus.* (Exp. alar. 1 unc. 10 lin.—2 unc.)

No. *Lactucæ*. *Wien. Verz.*—*Cu. Lactucæ*. *Steph. Catal. part ii. p. 103. No. 6359.*

Head and thorax as in the preceding, but of a darker hue: anterior wings obscure cinereous, obsoletely waved and striated with fuscous, with a somewhat ferruginous or yellowish spot towards the centre, as in *Cu. Umbratica*, but less distinct; towards the apex are some pale longitudinal streaks; the inner

margin is of a deep fuscous-ash, with some flexuous pale and dusky streaks; the hinder margin of the wing has a slender interrupted black line; the cilia are cinereous, with two darker lines at the base: posterior wings fuscous, with the base rather paler; the nervures and a central spot dusky; cilia white, with the base somewhat ochreous.

Caterpillar dusky-ash, with a reddish dorsal streak, bordered on each side by greenish spots, a yellowish lateral line, spotted with black, above the legs, and a black head: it feeds on the lettuce (*Lactuca sativa*), *Sonchus oleraceus* and *arvensis*, *Lapsana communis*, &c.:—the imago appears about the middle of July.

Found occasionally in the lanes about Darent and Birch woods, but far from abundant: also taken at Coombe-wood, and in other parts near London. “Marton Lodge, Yorks.”—*L. Rudd, Esq.*

Sp. 8. *lucifuga*. *Alis anticis cæruleo-cinereis, venis strigisque longitudinalibus nigris; posticis undique fuscis.* (Exp. alar. 1 unc. 10 lin.—2 unc.)

No. *lucifuga*. *Wien. V.*—Cu. *lucifuga*. *Steph. Catal. part ii. p. 103. No. 6361.*

Rather larger than Cu. *Lactucæ*: the head is dusky, with ashy-spots; thorax whitish, with brown transverse strigæ; the sides whitish-gray, with dusky edges: the back dusky, with whitish hairs: anterior wings rather broad, of a bluish-ash; the costa at the base palest; the nervures more or less dusky or black: towards the apex of the wings on the posterior margin are several longitudinal whitish streaks, edged with grayish, and terminated by a series of lunular black marks, beyond which is a transverse ashy-white streak; cilia ashy-gray, with the tip white: posterior wings deep dusky-brown, the cilia whitish, with the base a little dusky.

Caterpillar dirty-yellow, with dusky shades, with greenish-blue spots on the sides, and four lateral streaks; head glossy-brown: it feeds on *Sonchus oleraceus* and similar plants:—the imago appears in the beginning of July.

Frequents the same localities as the last, but less abundant.

“Netley, Salop.”—*Rev. F. W. Hope.*

Sp. 9. *Chamomillæ*. *Alis anticis obscure cinereis, nigro striatis, maculâ sub-centrali albidâ; posticis fuscis, basi albidis.* (Exp. alar. 1 unc. 6—9 lin.)

No. *Chamomillæ*. *Wien. V.*—Cu. *Chamomillæ*. *Steph. Catal. part ii. p. 103. No. 6362.*

Head fuscous, with cinereous striæ: thorax cinereous, with an anterior black striga, and some obscure cinereous ones; the back dusky: anterior wings obscure ash-colour, striated with black, the striæ very delicate and following the direction of the nervures, the spaces between being longitudinally striated with whitish and cinereous; at the base is a more distinct black streak, placed on a pale ashy ground, and at its extremity, a little behind the centre of the

disc, is a somewhat rhomboid, or emarginated, pale ashy or whitish spot: cilia ashy-brown, with a dusky streak and longitudinal black lines: posterior wings fuscous, with the base paler; cilia white, with two dusky transverse lines. Caterpillar cinereous, with two incurved ferruginous streaks on each segment; head yellowish-brown; it feeds on the flowers of the Chamomile (*Matricaria Chamomillæ*):—the imago appears in June.

Rare: found near Birch-wood and in the vicinity of Wimbledon-common: also in Devonshire, the New-forest, and near Walthamstow in Epping-forest.

Sp. 10. *fissina*. *Alis anticis striatis, fusco nubilosis, maculâ subcentrali albidâ, posticis fuscis*. (Exp. alar. 1 unc. 6—7 lin.)

No. *fissina*. *Haworth*.—Cu. *fissina*. *Steph. Catal. part ii. p. 103. No. 6363*.

Very similar to the preceding, of which it is probably a mere suffused variety: its head and thorax are similar; the anterior wings are of a deeper ash, and the black markings are more obscure, the basal one being, however, the most distinct, and terminated, as in Cu. *Chamomillæ*, by a somewhat lunular or rhomboid pale spot, a little behind the centre of the disc; cilia ashy-brown, with the apex pale: posterior wings entirely of a deep fuscous: tail considerably divided, appearing bifid.

I conceive that this insect is merely the opposite sex of the foregoing, differing chiefly in having the posterior wings of a deeper colour throughout, and the general tint much darker than in that species; it inhabits the same localities, but is far from common.

†Sp. 11. *Gnaphalii*. *Alis anticis fusco cinereoque variegatis, striis longitudinalibus interruptis margineque posteriori atris*.

No. *Gnaphalii*. *Hübner*.—Cu. *Gnaphalii*. *Curtis (!)*—*Steph. Catal. part ii. p. 103. No. 6364. note*.

Size of Cu. *Absinthii*: head and thorax brown, with white dashes and dusky centre: anterior wings marbled with grayish-ash and brown, with interrupted longitudinal black streaks, and a yellowish line at the base; the streaks near the hinder margin are shorter and finer than towards the base, and the margin itself is dusky or blackish; cilia brown, with two darker lines at the base; the apex white: posterior wings yellowish-brown, with ochraceous-white cilia.

I have never seen an indigenous example of this species, which inhabits the south of Russia and the north-east of Germany, in any of the numerous collections which have come under my inspection: it is introduced by Mr. Curtis, in his Synoptic List of the British Cucullia, but without giving the slightest clew to its locality, capture, &c.; I therefore conceive that it is inserted through error, knowing the usual origin of these Synoptic Lists.

Sp. 12. *Absinthii*. *Alis anticis canis, fasciis punctisque in tetragonum positis nigris; posticis albicantibus, fimbriâ fuscâ.* (Exp. alar. 1 unc. 6—7 lin.)

Ph. No. *Absinthii*. *Linné.*—*Don. ix. pl. 304.*—Cu. *Absinthii*. *Steph. Catal. part ii. p. 103. No. 6365.*

Head deep brown, varied with white: thorax hoary-white, with the anterior margin rather dusky, and three transverse brownish streaks: anterior wings hoary-ash, with two irregular black transverse fasciæ, the first before the middle, somewhat geminated, the second about the middle, on the costa, and between this last and the apex are sometimes the rudiments of a transverse arcuated striga; between the fasciæ, in place of the anterior stigma, are four distinct black spots, placed in a square, and between the hinder fascia and the rudimentary striga are four other black dots similarly placed; on the hinder margin is a row of black dots; and on the costa, towards the apex, are three or four minute white ones; cilia grayish white: posterior wings whitish, with a dusky fimbria, cilia white.

Caterpillar green, streaked with yellow and red spots:—it feeds upon the wormwoods (*Artemisiæ absinthium* and *vulgaris*); the pupa is brown, anteriorly green:—the imago appears about the beginning of July.

This insect used formerly to be not uncommon in the neighbourhood of London, occurring in plenty in Bunhill-fields; but for nearly half a century I believe few, if any, examples have been taken; on the coasts of South Wales and Devonshire, numerous captures have been made within these few years. “Barnstaple.”—*T. Cocks, Esq.* “South Wales.”—*Captain Blomer.*

†Sp. 13. *Artemisiæ*. *Alis anticis viridibus, maculis argenteis; posticis albidis, margine dilutiore cinereo.* (Exp. alar. 1 unc. 6 lin.)

No. *Artemisiæ*. *Wien. V.*—Cu. *Artemisiæ*. *Steph. Catal. part ii. p. 104. No. 6366.*

Head and thorax silvery-white, with greenish transverse lines: anterior wings bright clear green, with seven or eight silvery spots, one placed at the base, very large, and giving off a twig on the inner margin of the wing, then a geminated one, divided by a longitudinal dusky streak, and edged on the inner margin with the same; this is followed by a second geminated spot of an ovate form and smaller size, also divided by a dusky streak; on the costa, at the apex, is a large flexuous one, and parallel with the hinder margin is a linear elongate one; the hinder margin is silvery; and the cilia white: posterior wings white, with a pale dusky border; cilia also white.

Caterpillar slightly pilose, green, spotted with white, with a dorsal and lateral series of red tubercles:—it feeds on the *Artemisia sylvestris*:—the pupa is green, and folliculated:—the imago appears in June.

This conspicuous insect evidently differs considerably from its congeners, both in its primary and final stages; its larva being pilose and warty; and the imago having its wings adorned with brilliant metallic scales, and being of a

different form to those of the other species, by the former character beautifully leading the way to the brilliantly ornamented *Plusiæ*. I have, however, not thought proper to discriminate it further from the other *Cucullia*.

One example only of this remarkably beautiful insect has hitherto been captured in Britain; this was taken about twenty years ago near "Dedingstone, by Mr. Shelton."—*Dr. Leach*.

GENUS. CXLI.—*CHARICLEA mihî*.

Palpi short, curved upwards, entirely clothed with long scales and hair; the basal joint cylindric, a little curved, about as long as the other two united; second two-thirds the length of the basal, ovate-acuminate, terminal very short, ovate, obtuse: *maxillæ* longer than the antennæ. *Antennæ* slender, elongate, simple in both sexes, pubescent beneath, the basal joint large, very pilose beneath: *head* subtrigonal: *eyes* rather large, globose, naked: *thorax* slightly crested anteriorly: *abdomen* short, and rather cylindric, with a slightly bifid tuft at the apex, in the males; elongated, acute, somewhat depressed, with short dorsal and lateral fascicles of scales, in the females: *wings* deflexed, entire; *anterior* sublanceolate; *cilia* elongate: *legs* rather short and stout, pilose; *anterior tibiæ* very short, armed with two shining horny spines at the apex, the inner one long and curved. Larva naked, fleshy, smooth: pupa simple, folliculated.

The acute glossy spines that arm the apex of the anterior tibiæ (a character which I have elsewhere only observed in the Pomeridian genus *Petasia*) serve at once to distinguish this genus from the other *Noctuidæ*; it is also further distinguished from *Cucullia*, to which it is evidently closely allied, by the comparative brevity of the maxillæ, wings, and abdomen, by the terminal joint of the palpi being completely enveloped in scales, and in other less important particulars, exclusively of the liveliness of its colours. Ochsenheimer and Treitschke include this genus in their artificial one *Xylina*, without even constructing a section for its reception.

Sp. 1. *Delphinii*. *Alis anticis purpurascensibus, fasciis duabus albidis, posticis albidis fimbriâ fuscâ extus purpureo marginatâ.* (Exp. alar. 1 unc. 3—4 lin.)

Ph. No. *Delphinii*. *Linné*.—Ch. *Delphinii*. *Curtis*, ii. pl. 76. *Steph. Catal.* part ii. p. 104. No. 6368.

Head and thorax ochreous white: anterior wings at the base with a broad trilobed bright rosy-purple fascia, bordered with a slender fuscous and whitish striga; a little behind the middle, towards the hinder margin, is a narrower one of similar colours; the space between these is of a pale rich rosy-lilac, and bears a small oval pale rosy-ochreous spot in place of the

anterior stigma, and a larger bluish-lilac one in lieu of the posterior stigma; posterior margin pale rosy-ochraceous, with a dusky line at the base of the cilia, which are fulvous-white: posterior wings white, with a fuscous fimbria, bordered exteriorly with rosy; cilia whitish.

This brilliant species varies considerably in colour: one of my specimens has the anterior wings suffused with a rich bluish-purple, and the posterior with a broad fuscous fimbria scarcely margined with rosy.

Caterpillar yellowish, spotted with black, with two yellow lines;—it feeds on the *Delphinium consolida*:—the imago appears in June.

Few indigenous examples of this truly beautiful and rare insect are to be found in British cabinets; in that of the British Museum, and in my own collection, are specimens from the neighbourhood of Windsor, caught about fifteen years since, in June; and in some of the older cabinets are others which have occurred in the vicinity of London; but I grieve to add, that from the great rarity and beauty of the insect, many individuals persist in the execrable practice of introducing continental specimens into their cabinets, thereby diminishing instead of increasing the value of their collections, and misleading instead of instructing the student who is desirous to obtain a knowledge of our indigenous productions, as it is rarely that the proprietors of such specimens take the pains to distinguish them by any *visible* mark:—upon this point see remarks, vol. i. p. 129, &c.

GENUS CXLII.—CALOPHASIA* *mili*.

Palpi very short, subclavate, porrected, densely clothed with elongate hair-like scales, the terminal joint slightly visible; *maxilla* longer than the antennæ. *Antennæ* elongate, slender, simple in both sexes; the basal joint very stout, and pubescent beneath: *head* small, subovate, with a dense fascicle of scales on the front: *thorax* with an acute crest anteriorly: *abdomen* short, acute, without dorsal fascicles of scales: *wings* entire, deflexed; anterior short, elongate-triangular; cilia very long; posterior ovate-triangular, rather small; cilia short. Larva naked, smooth, funiform: pupa enclosed in a stout web; its head-case recurved into a short horn on the breast.

This and the preceding genus form a portion of the fourth section of the artificial group *Xylina* of Ochseneimer; a genus which, as I have elsewhere shown, ought to be subdivided, although the British species are but few in number, as it is not the mere extent

* Κάλος, lignum; φάσις, apparitio.

of a group, but the diversity existing amongst its members, which calls for subdivision, and the consequent application of new names. That *Calophasia* is closely allied to *Cucullia* there can be no doubt, and its singular pupa confirms its affinity, while it removes it from *Xylina* and its kindred genera. *Ph. No. perspicillaris* of Linneus, which I have a faint recollection is in Mr. Swainson's cabinet, appears to belong to the present genus.

Sp. 1. *Linariæ*. PLATE 29. f. 2.—*Alis anticis fusco-cinereis, albo nigroque striatis, maculâ reniformi albâ nigro cinctâ.* (Exp. alar. 1 unc. 2—3 lin.)

No. *Linariæ*. *Wien. V.*—Ca. *Linariæ*. *Steph. Catal. part ii. p. 104. No. 6367.*

Head brown, with whitish shades: thorax fuscous, with transverse white strigæ in front: anterior wings varied with fuscous and ash, each marginal areolet towards the apex with a black dash or line more or less edged with white, presenting a striated appearance; near the centre of the wing is an attenuated black streak with a fuscous spot in its middle, and between it and the posterior margin is a reniform snowy-white spot, more or less margined with black; between the attenuated black streak and the inner margin is an elongate, linear, white, line edged with black at its apex, and from this a lunular cinereous striga with black edges extends to the inner margin, and an arcuated striga of similar colour extends from the costa, passing closely behind the reniform white mark, to the middle of the inner margin; cilia very long, white, interrupted with brown: posterior wings pale fuscous, with the nervures and hinder margin dusky; cilia white.

Caterpillar pale yellow, with a broad lighter stripe on the back, and black and white lateral striæ; head cinereous, spotted with black:—it feeds on the *Antirrhinum Linariæ*, preferring the petals.

The only examples I have seen of this remarkably conspicuous insect are contained in the collection of the British Museum, and in my own cabinet; they were captured in June, 1817, at Woodside, near Epping, and were obtained while recent, by Dr. Leach, who, with his wonted liberality, supplied me with the fine specimen whence the accompanying figure was designed.

GENUS CXLIII.—EREMOBIA* *mili*.

Palpi short, subclavate, distinct, curved upwards; the terminal joint slightly exposed, conic-acute; *maxillæ* as long as the antennæ. *Antennæ* rather long, very slender, simple, finely pubescent beneath in the males, the basal joint rather large: *head* large, densely squamose: *thorax* subquadrate, slightly

* *Ερημοίς*, desertus; *βίον*, vivo.

crested behind: *abdomen* moderate, gradually attenuated to the apex, which is slightly tufted; its back carinated, with a row of short, scaly, tufts; *wings* entire, deflexed during repose; *anterior* elongate-triangular, with the hinder margin a little produced in the middle; *cilia* very long; *posterior* ovate-triangular; *cilia* short: *legs* rather short; *anterior tibiæ* greatly abbreviated; *posterior* flattened, broad, with a lateral tuft of hairs. Caterpillar slightly hairy: pupa rather slender.

The only indigenous species of this genus has hitherto been associated with *Xanthia*, with which it appears solely to agree in its flavescent or rather ochraceous colour, its habit, period of flight, and locality being totally different from those of the genus just mentioned. Like the *Plusiæ*, and kindred genera, the *Eremobiæ* fly by day, and again in the twilight, while the *Xanthiæ* repose during the former period: they frequent exposed heathy downs, and appear in the beginning of summer. From *Xanthia* this genus may be known by the elongation of the cilia on the anterior wings, and by the rotundity of the hinder margin of the latter; the dissimilar proportions of the palpi, and by the form of the latter; by which latter characters it may be distinguished from *Abrostola* and *Plusia*, exclusively of its obscurely crested thorax.

Sp. 1. *ochroleuca*. *Alis anticis ochraceo albicantique variis, fuscis tribus macularibus fuscis, lineâ albâ cinctis; posticis fuscescentibus fimbriâ saturatiore.* (Exp. alar. 1 unc. 4—6 lin.)

No. *ochroleuca*. *Wien. V.*—*Er. ochroleuca*. *Steph. Catal. part ii. p. 104.* No. 6369. No. *citrina*. *Don. x. pl. 340. f. 2.*

Head, thorax, and abdomen, yellowish-white, or ochraceous, with brownish clouds on the two former; anterior wings varied with ochraceous and white, or hoary, with a small fuscous dot at the base, then a subquadrate brownish fascia, followed by an irregular broken fuscous band, edged with white a little before the middle, and towards the hinder margin by an oblique paler band, bearing a black streak about its middle, and a few dusky clouds towards the inner margin of the wing; near the posterior margin is an undulated whitish striga, and on the margin itself is a row of trigonate black spots; cilia ochraceous-white, interrupted with cinereous: posterior wings brownish, or cinereous, with a dusky fimbria, the latter separated from the colour of the base by an undulated transverse ochraceous stigma: cilia white, with a few cinereous clouds at the base.

The *Phytometra bifasciosa* of Haworth is a variety of this species, or rather an old example, with the colours a little suffused: the original in Mr. Swainson's cabinet.

Caterpillar pale-yellow, with a brighter yellow lateral streak, on which are some small dots, with fine hairs:—it feeds on tritici:—the imago appears about July.

Few specimens of this species have been captured near London; two or three, however, have been taken on the downs near Croydon, and I believe some have occurred in Epping-forest:—the insect has been found abundantly on the South Downs, and on the hills near Dover: it has also appeared in Norfolk, and in Bedfordshire.

GENUS CXLIV.—ABROSTOLA, *Ochsenheimer*.

Palpi rather long, ascending, slender; the terminal joint greatly exposed, elongate, attenuated; basal joint arcuated, slender, about half the length of the second, which is nearly straight, slightly attenuated at the apex, terminal as long as the basal, sublinear, elongate: *maxillæ* rather long. *Antennæ* simple in both sexes, rather slender, pubescent within in the males: *head* small, with a crest between the antennæ: *eyes* globose, naked: *thorax* stout, with the anterior margin having two more or less ocellated spots; the back with a dense elongate bifid crest: *abdomen* moderately elongate, with compact fascicles of scales down the back, especially towards the base: *wings* obsoletely indented: *anterior* elongate-triangular, without metallic spots or strigæ; the anterior stigma duplicated, as it were, and placed obliquely across the disc, the scales on its edge frequently elevated: *cilia* very long. Larva, with the anterior segments attenuated, the fourth rather gibbous, the caudal one with one or two prominences; with sixteen legs, the anterior pair of prolegs rather small: pupa enclosed in a soft folliculus on the earth.

The insects of this genus are rather nocturnal than diurnal, though the less typical may be observed “winging their way” in the solar rays during the afternoon: they may be distinguished from the *Plusiæ*, with which they nearly agree in the external appearance of the palpi, by the anterior wings being destitute of metallic ornament, although in *A. illustris* they are extremely similar in form to those of the *Plusiæ*, with which genus Treitschke unites them, though manifestly improper; the larvæ having sixteen legs, the two anterior prolegs being smallest, while in *Plusia* they possess but twelve.

Sp. 1. *triplasia*. *Alis anticis fuscis, basi flavescens, arcu duplici contrario; stigmatibus tribus pallidioribus, posticis fuscis.* (Exp. alar. 1 unc. 4—5 lin.)

Ph. No. *triplasia*. Linné.—Ab. *triplasia*. Steph. *Catal. part ii. p. 104. No. 6370.*

Head deep brown, with a transverse black streak: thorax ochraceous-brown, with two obscurely subocellated spots in front, bounded by a fuscous line; the crest immaculate; anterior wings, with the base of an obscure rusty-griseous, or yellowish, bounded by an arcuated black striga, edged with griseous an-

teriorly, from thence to the hinder margin fuscous, with another striga beyond the stigmata, turning in an opposite direction from the first, black anteriorly and griseous posteriorly; and between this and the posterior margin are two obsolete, somewhat waved, strigæ, composed of pale, indistinctly lunular, spots; and near the costa, at the apex, are two or three black longitudinal streaks; the hinder margin itself has a fine dusky line; the stigmata are large and rather paler than the ground of the wing, the anterior one extending obliquely over the disc and appearing doubled; cilia fuscous: posterior wings dusky cinereous, with a central lunule, and a broad marginal band brownish-black; cilia dirty-white.

Caterpillar green, with a white streak on the three anterior segments, a black spot on the two following, edged with ochraceous, the latter colour passing obliquely downwards in a streak to the lateral line, the remaining segments with an oblique white streak, the colour behind being dusky;—it feeds on the nettle (*Urtica dioica*):—the imago appears in July.

Not very uncommon throughout the metropolitan district, and in the south of Britain, frequenting gardens, wood-sides, &c. I have often captured it in a garden at Hertford. “Epping.”—*Mr. H. Doubleday*.

† Sp. 2. *Asclepiadis*. *Alis ex fusco-nigricantibus, basi dilutioribus; anticis arcu duplici contrario, lineolis atris ad marginem externum.* (Exp. alar. 1 unc. 4—6 lin.)

No. *Asclepiadis*. *Wien. V.*—Ab. *Asclepiadis*. *Steph. Catal. part ii. p. 104. No. 6371.*

Deep dusky-black or brown; wings of a fuscous-black, with the base paler; anterior with an arcuated striga at the base, and another behind the middle, turning in the opposite direction; the costa with black streaks.

Caterpillar feeds upon the *Asclepias Vincetoxicum*; it is pale, spotted with black, with a yellow lateral line.

Upon a recent collation of the synonyms of this genus, I find that the following alterations appear requisite in my Systematic Catalogue, the synonyma there given having been brought together long since. From Ab. *Asclepiadis* dele the references to Haworth, Samouelle, Donovan, Harris, and Hübner, and transpose the four first to Ab. *Urticæ*, and the last to Ab. *triplasia*.

I have never seen this species, which I have been informed has been captured in the north of England.

Sp. 3. *Urticæ*. *Alis anticis fusco glaucoque nebulosis, arcu duplici contrario; posticis fuscis.* (Exp. alar. 1 unc. 4—7 lin.)

No. *Urticæ*. *Hübner.*—Ab. *Urticæ*? *Steph. Catal. part ii. p. 105. No. 6372.*—Ph. No. triplacea. *Don. ix. pl. 298?*

Head and thorax brown, the latter with two very distinct subocellated spots in front, edged with brownish-black, behind which is a broad distinct transverse black streak; the crest clouded with brown; anterior wings with the

base and apex clouded with glaucous and brown, the centre fuscous, forming a kind of fascia, bounded on the basal edge with an arcuated black striga, edged anteriorly with rusty-griseous, and on the posterior margin with a similar striga turning outwards; the stigmata are placed between these strigæ, pale glaucous, with a black margin, the anterior with elevated scales at its discoidal extremity; behind the posterior stigma is a distinct geminated pale glaucous fascia, of which the outer branch terminates at the apex of the costa, where it intersects a black spot composed of two or more confluent black streaks; on the hinder margin is an undulated black striga; cilia fuscous, with the base paler: posterior wings fuscous, with the base rather paler; cilia cinereous, with fuscous clouds.

Caterpillar grass-green, with longitudinal darker shades, a whitish lateral stripe, the fourth and fifth segments with a black mark, edged with white on the back, the remaining segments with some white spots on the sides: it feeds on the nettle (*Urtica dioica*):—the imago appears towards the end of July.

Common in the neighbourhood of the metropolis, affecting banks, shady and woody lanes, shrubberies, &c. “Netley, Salop.”—*Rev. F. W. Hope*. “Epping.”—*Mr. H. Doubleday*. “Kimp-ton, common.”—*Rev. G. T. Rudd*.

Sp. 4. illustris. *Alis anticis cinereo-æneis viridi fuscoque nebulosis, rubro micantibus, strigis albis duplicatis, exteriore flexuosa.* (Exp. alar. 1 unc. 6—8 lin.)

No. illustris. *Fabricius*.—Ab.? illustris. *Steph. Catal. part ii. p. 105. No. 6373.*

Head rosy-ash; thorax cinereous, with the anterior margin slightly ferruginous, and the crest a little tinted with green posteriorly; anterior wings brassy-ash, very glossy, and varied with greenish and fuscous, with rosy tints; with an abbreviated oblique whitish striga at the base, between which and the middle is a double oblique rosy-white striga, reaching on the inner edge nearly to the base; beyond the middle is another duplex reddish-white striga, which is slightly flexuous, and between this and the posterior margin is a single flexuous striga of similar hue, arising from near the apex of the costa, and terminating on the anal angle; and on the posterior margin itself is another striga of similar colour; between these two last strigæ are two rusty spots, one at the apex of the costa, and the other in the middle of the posterior margin; and on the inner margin near the anal angle is a third; between the duplex strigæ the stigmata are placed; they are simply indicated by whitish margins; the posterior one, however, sometimes having two cinereous clouds; the central nervure is also whitish; the cilia reddish-ash: posterior wings cinereous, with a darker central striga and posterior margins.

Caterpillar bluish-green, with a yellow lateral stripe, with three black patches on each segment on either side, and a dirty-green stripe on the back, and beneath the lateral line three other minute black dots on each segment: it feeds on the Aconite: pupa green, spotted with brown, enclosed in a delicate web:—the imago appears in June or July.

This beautiful insect has been but rarely captured in England, and I believe not a single example has occurred during the past twenty years; though previously to that period a considerable number was found by Mr. Spratt, flying during the day-time on Salisbury-plains: and Mr. Donovan caught a specimen in South Wales.

GENUS CXLVI.—PLUSIA, *Ochsenheimer*.

Palpi longer than the head, ascending, densely clothed with elongate scales, those of the second joint produced into a conic projection, extending nearly

GENUS CXLV.—CALOTENIA * *mihi*.

Antennæ moderate, slightly pectinated in the males; simple in the females: *head* small, rounded: *thorax* highly crested: *body* elongate: *wings* deflexed during repose; *anterior* entire, broad, green, with transverse sinuated fasciæ; *posterior* moderate.

When I named this genus—of which, for want of specimens, I can only give the above insufficient characters—in my Nomenclature, I was not aware that the name *Celsia* had been applied by Linné to designate a genus of plants: finding, however, that to be the case, I have substituted the present appellation, and I here take occasion to remark, that the term *Melia*, recently given to a singular indigenous genus of Lepidoptera, must also be withdrawn, that name being likewise employed by the illustrious Swede for a genus of plants.

† Sp. 1. *Celsia*. *Alis anticis viridibus, fasciâ sinuato-dentatâ margineque externo fuscis*. (Exp. alar. 1 unc. 5—8 lin.)

Ph. Bo. *Celsia*. Linné. Martyn (!)—*Celsia viridis*. Steph. Catal. part ii. p. 105. No. 6374.

Head green; anterior wings green, with a fuscous transverse central fascia, having its margin slightly waved, with a single tooth on each, the dentations standing opposite to each other, and behind the posterior one a griseous lunar mark in the middle of the wing; the hinder margin is also fuscous, the inner edge of the fimbria being waved: posterior wings dusky: thorax and abdomen greenish, fringed with red.

Linnæus states that it is found on the hop; Villers on the birch.

Martyn gives this singular-looking insect as British in his Vade-mecum; but as I have never seen an indigenous example in any collection, I presume that it does not inhabit Britain: it is a native of Hungary, Austria, &c.; but it has been found in Sweden.

* Καλός, pulcher; Ταινία, fascia.

to the apex of the terminal one, which is distinctly visible; basal joint as long as the apical, reniform, second above twice the length of the first, slightly bent and acute at the apex, terminal linear, obtuse: *maxillæ* longer than the antennæ. *Antennæ* simple, finely ciliated within in the males, pubescent in the females: *head* small, crested: *eyes* naked: *thorax* robust, strongly crested behind: *abdomen* elongate, stout, with compact fascicles of scales down the back and at the base, the apex with a small tuft, in the males especially: *wings* deflexed when at rest, *anterior* repanded, and more or less adorned with brilliant metallic streaks or patches; *cilia* emarginate, elongate; *posterior* entire. Larva slender, with twelve legs; six pectoral, four ventral, and two caudal. Pupa enclosed in a folliculus.

The *Plusiæ*, as their name imports, are eminently distinguished by the richness and splendour of their appearance, all the species having their wings more or less adorned with effulgent metallic pencillings, blotches, fasciæ, or dots, upon a rich purplish or rufo-fulvescent ground; the thorax bears a remarkably high crest, and the back of the abdomen is in general furnished with elongate tufts of hair-like scales; the palpi are rather long, ascend considerably, and have the terminal joint much elongated and slender; the larvæ possess twelve legs only, the prolegs being only six in number, one pair placed on the eighth segment, another on the ninth, and the third pair on the anal one; when walking they bend their back, thence termed *half-loopers*; they spin a delicate silken web, in which they change to a shining pupa, which is generally armed with an acute spine at the apex. Nature having richly clothed the species of this genus, they “extract the nectar from their favourite flowers” by day, seemingly that their brilliant liveries may be exposed to view; it being almost universally the case, that the most gorgeously attired animals make their appearance in the full blaze of the sun, while those of sombre and dingy hues affect only the obscurity of midnight.

Sp. 1. *Iota*. *Alis anticis brunneo griseo ferrugineoque variis, litterâ v punctoque contiguo marginibusque stigmaticum aureis.* (Exp. alar. 1 unc. 5—8 lin.)

Pl. No. *Iota*. *Linné?*—Pl. *Iota*. *Steph. Catal. part ii. p. 105. No. 6375.*

Head and thorax rich purple-brown, the latter with fine transverse lines, and slightly varied with ferruginous: anterior wings richly variegated with brown, griseous, and rust-colour, the ordinary strigæ being of a rosy-brown, considerably undulated, and generally more or less finely adorned with delicate golden dashes; towards the centre of the disc, between the stigmata and the inner margin, is a curved mark resembling the letter *v*, and between it and the anal angle an oblong ovate spot of a brilliant golden hue; the posterior

stigma is delicately margined with gold, and the anterior one has a golden edge placed on its inner side alone, forming a golden lunule immediately above the *v* mark; cilia rosy-brown, with darker shades: posterior wings reddish-ash, with an oblique striga, the nervures and hinder margin fuscous; cilia as in the anterior wings: abdomen cinereous, with the dorsal tufts and sides tinged with rose-colour.

This beautiful species varies much: in some of my specimens the golden marks on the anterior wings are united, and form the Greek γ , as in Pl. Gamma: but in all the varieties the undulated metallic strigæ exist.

Caterpillar green, spotted with white: it feeds on the Nettle, Archangel, Burdock, &c.:—the imago appears in the beginning of July, and is found in woody situations.

Not very common; found occasionally at Coombe and Darenth woods, most frequently at the latter place: it also occurs in various parts of the country, as Devonshire, the New Forest, &c. “Netley.”—*Rev. F. W. Hope*. “York and Newcastle.”—*W. C. Hewitson, Esq.* “Allesley and Coleshill.”—*Rev. W. T. Brce*.

Sp. 2. *percontationis*. *Alis anticis brunneo, ferrugineoque variis liturâ angulatâ punctoque contiguo aureis.* (Exp. alar. 1 unc. 6—8 lin.)

Pl. *percontationis*. *Ochsenheimer*.—*Steph. Catal. part ii. p. 105. No. 6376.*
—Ph. No. Iota. *Don. vii. pl. 256. f. 1.?*

Head, thorax, and abdomen, as in the last, but of a paler tinge: anterior wings elegantly varied with brown and ferruginous, the ordinary strigæ slightly flexuous, and totally destitute of metallic ornament, the space between the second and third from the discoidal nervure to the inner margin of a deep fuscous purple, and bearing an angulated mark resembling the Greek *v* or ν , and a rounded spot generally acute anteriorly, of a bright gold colour: stigmata indistinct, the posterior slightly margined with dusky: posterior wings as in Pl. Iota.

This varies considerably in colour, and slightly in the form of its markings: one specimen in my collection is of a pale rich reddish-purple, with darker shades, having the angulated golden litura very small, and the adjoining spot perfectly round and somewhat distant; while others are of a deep purplish-brown hue, with the golden marks of a large size, and nearly united.

I am fully persuaded that this insect is perfectly distinct from the preceding, notwithstanding the opinion of Treitschke and others to the contrary. In the first place, it is usually of a larger size, and the form and position of the ordinary strigæ, as well as their sinuations, the shape of the metallic characters on the disc, and the absence of the latter on the strigæ and margins of the stigmata—exclusively of the great diversity in the colour of the two insects—are important distinctions; and secondly, the period of appearance is different;

the present species appearing towards the end of June *, and frequenting lanes in preference to woods; a point to which my attention was called by an old practical collector, Mr. J. Standish, sen., who, although now verging upon fourscore, still follows his favourite pursuit with considerable ardour.

Found in the lanes near Darenth-wood and Hertford, and probably in other parts; but, from having been hitherto confounded with the foregoing, I am not certain of other localities.

Sp. 3. *bimaculata*. *Alis anticis fusco-brunneo ferrugineoque variis, maculis duabus aureis.* (Exp. alar. 1 unc. 8 lin.)

Pl. *inscripta*? *Steph. Catal. part ii. p. 105. No. 6377.*

Head, thorax, and abdomen as in the last described: anterior wings varied with fuscous-brown and ferruginous, with a biundulated golden striga at the base, enclosing a black spot, then another, similarly coloured, before the stigmata; much angulated at the origin on the costa, and waved interiorly, followed, behind the stigmata, by an obscure crenulated bent one, without metallic ornament; stigmata very obsolete, without golden edges: on the disc are two large bright golden spots, the anterior emarginated towards the base, and rounded posteriorly; the hinder triangular-ovate; between the anterior one and the costa is a faint golden lunule, as in Pl. *Iota*; cilia rufescent, immaculate: posterior wings reddish-ash, with a central lunule, an oblique striga, the hinder margin and the nervures dusky.

A single example of this beautiful and remarkably distinct insect—which is not the No. *inscripta* of Esper—was obtained by me from the Marshamian collection, where it was placed as the opposite sex of Pl. *Iota*;—of its locality I am ignorant.

Sp. 4. *interrogationis*. *Alis anticis atro cinereoque variis, in medio litterâ u punctoque contiguo argenteis.* (Exp. alar. 1 unc. 3—5 lin.)

Ph. No. *interrogationis*. *Linné*.—Pl. *interrogationis*. *Steph. Catal. part ii. p. 105. No. 6378.*—Pl. *aurosignata*. *Don. viii. pl. 453.*

Head, thorax, and abdomen of an ashy-gray, intermixed with darker shades: anterior wings of a bluish ashy-gray, prettily marbled with deep black, in some examples with a purplish or rosy tinge; the ordinary strigæ are not always very distinct, the second and third are, however, geminated, and the

* The continental writers state that there are three broods of Pl. *Iota* annually, the first in April, the second towards the end of June, and the third in the beginning of July:—from their own showing, therefore, it is evident that there must be more than one species confounded under the above name, as it is clear that the June brood cannot produce again in so short a period as the commencement of July;—is it not, therefore, probable that one species may be single brooded, and the other double, as in *Vanessæ Polychloros* and *Urticæ*?

posterior one is considerably undulated and black; in the centre of the disc is a silvery mark resembling the letter *v*, and adjoining to it is a round silvery spot; posterior margin dark ash; cilia cinereous, interrupted with dusky: posterior wings dusky-gray; the cilia dusky with black spots.

Like its congeners this species varies; but from its rarity in the south of England I have been unable to obtain more than a single variety, which has the central silvery marks on the anterior wings, very large and distinct, and the posterior margin broadly clouded with cinereous.

The caterpillar feeds on the nettle (*Urtica urens*):—the imago appears towards the end of June or beginning of July.

Not uncommon on the extensive moors of the north of England and in Scotland, but rarely, if ever, found south of the Humber and Mersey. “In plenty in the Isle of Arran.”—*Dr. Leach*.

Sp. 5. Gamma. *Alis anticis griseo fuscoque variis, gamma græcorum argenteâ adjacente maculâ ferrugineâ.* (Exp. alar. 1 unc. 4—8 lin.)

Ph. No. Gamma. *Linné. Don. viii. pl. 265. f. 2.*—Pl. Gamma. *Steph. Catal. part ii. p. 106. No. 6379.*

Head, thorax, dorsal and abdominal crests deep ashy-gray; abdomen cinereous: anterior wings varied with griseous and fuscous, sometimes with a silvery tinge, with a triangular paler blotch on the costa near the apex, the ordinary strigæ nearly as in Pl. Iota, but less undulated; the stigmata as in that insect, with metallic borders, and adjoining to the anterior one a conspicuous silvery character closely resembling the Greek γ , but a little curved at the bottom: cilia griseous, spotted with fuscous: posterior wings pale ashy-brown, with the nervures and hinder margin deep fuscous; cilia whitish, spotted with dusky.

Var. β . Anterior wings darker, less silvery, and deeply tinged with rosy, with the central character of a golden hue.

Caterpillar green, with a brown head, a lateral yellow streak and white dorsal striæ: it is polyphagous;—the imago is treble brooded, appearing in April, June, and September.

By far the most common species of this genus, frequenting every hedge and field where flowers abound; flying during the early part of the day, and in the afternoon, and again before and after dusk; extremely abundant during September last at the Hermitage, South Lambeth, and in the neighbouring gardens. “Near Carlisle, common.”—*T. C. Heysham, Esq.* “York and Newcastle.”—*W. C. Hewitson, Esq.* “Common near Swansea.”—*L. W. Dillwyn, Esq.*

† Sp. 6. circumflexa. *Alis anticis rufo cinereoque nebûlosis, maculâ flexuosâ argenteâ.* (Exp. alar. 1 unc. 4. lin.)

Ph. No. circumflexa. *Linné.*—Pl. circumflexa. *Steph. Catal. part ii. p. 106. No. 6380.*—Ph. flexuosa. *Don. xii. pl. 412.*

Smaller than the preceding: head and thorax gray-brown, with a reddish tinge

on the dorsal and abdominal crests: anterior wings marbled with rufous and cinereous, with an elongate flexuous silvery character, extending nearly from the base of the inner margin to about the middle of the wing, where it becomes somewhat expanded; on the costa, towards the apex, is a somewhat triangular pale streak: posterior wings as in Pl. Gamma.

† Var. β ? With the flexuous silvery stripe extending from the second striga to the anterior edge of the third, and throwing off a branch towards the costa.

The form of the silvery mark is very dissimilar in this variety to the former; its origin commencing about the centre of the second striga, instead of the junction of the same with the base of the inner margin; its form is also different, being rather arcuated than flexuous.

An insect of great variety, of which the examples in the late Mr. Swainson's collection are the only specimens I have seen; but of their locality I am not aware. There is a specimen in Mr. Donovan's cabinet, which is said, by Mr. Haworth (vide Entomological Transactions, v. i. p. 241.) to have been taken in Essex; but Mr. Donovan tells us that it was found in Yorkshire, seemingly from having confounded it with the preceding species. "Near Hull, Yorkshire."—*W. C. Hewitson, Esq.*

† Sp. 7. *biloba*. *Alis anticis purpureo-fuscis strigis flexuosis liturâque aureis, maculâque bilobâ centrali argenteâ.* (Exp. alar. 1 unc. 5. lin.)

Pl. *biloba*. *Steph. Catal. part ii. p. 106. No. 6381.*

Fuscous, tinged with purplish: anterior wings of a rich purplish-brown, with darker undulated strigæ, nearly as in Pl. Gamma; at the base are several flexuous golden strigæ, and towards the costa, near the apex, is a mark of a similar hue, resembling a reversed \cap : in the centre of the wing is a large brilliant silvery patch, producing two lobes towards the costa; the rest of the wing and the posterior wings resemble those of Pl. Gamma.

One specimen only of this species has hitherto come under my inspection; it is in the cabinet of W. Swainson, Esq., formerly belonging to his father; but of its locality the possessor could not furnish me with any particulars. It appears to be as unknown to the continental writers.

† Sp. 8. *aurifera*. *Alis anticis dilutè fuscis, maculâ magnâ subtriquetrâ aureâ.* (Exp. alar. 1 unc. 4 lin.)

No. *aurifera*. *Hübner*.—Pl. *aurifera*. *Steph. Catal. part ii. p. 106. No. 6382.*

Head orange or fulvous, varied with griseous; thorax gray, with an orange fascia; anterior wings pale fuscous, with three transverse strigæ, and a large subtriangular golden-green patch in the middle, broadest anteriorly, and narrowed towards the inner margin; in the hinder margin is a fine yellowish line; the cilia are fulvous, with dusky spots: the posterior wings brownish, with the base palest, and the margin darkest; cilia dirty-white.

The above insufficient description was taken some time since, and I have not had an opportunity of correcting it recently.

Also an insect of extreme rarity, and of which two examples only have yet been observed by me; one was taken near Dover by the late Rev. J. Lyon, and is now in the British Museum; the other was found, I believe, in the vicinity of the metropolis, and at present forms a prominent ornament of a collection at Manchester, having been rescued from oblivion by Mr. Ingpen.

Sp. 9. *chrysis*. *Alis anticis dilutè fuscis, fasciis duabus orichalceis, quandoque medio confluentibus.* (Exp. alar. 1 unc. 4—6 lin.)

Ph. No. *chrysis*. *Linné*.—Pl. *chrysis*. *Steph. Catal. part ii. p. 106. No. 6383. Albin. pl. lxxi. f. a—d.*

Head orange-yellow: thorax the same in the centre, but more dusky, with its sides mixed with brownish and gray: anterior wings pale fuscous, with a golden-green fascia near the base, and a second of similar hue, and broader, placed obliquely behind the middle, very often united between the stigmata and the inner margin by a longitudinal patch to the anterior one; the margins of the stigmata and the nervures at the apex, as well as a fine line on the hinder margin of the wing itself, are of a deeper fuscous than the ground colour of the wing; cilia of a reddish-brown: posterior wings fuscous, with rufescent cilia: abdomen yellowish-brown, with its sides and anal tuft rufescent.

The metallic fasciæ on the anterior wings vary considerably in colour; in some examples they are of a greenish hue, in others of an orange or gold colour, or brassy.

Caterpillar green, with a white lateral line, and faint oblique whitish streaks above; it feeds on various plants, as nettles, burdock, thistles, &c.: the pupa is enclosed in a delicate reticulated folliculus:—the imago appears towards the end of June, and frequents weedy banks in lanes.

A common and elegant species, frequenting weedy hedges, where nettles abound, the borders of woods, gardens, meadows, lawns, &c., throughout the metropolitan district. “Epping.”—*Mr. H. Doubleday*. “Netherton.”—*T. C. Heysham, Esq.* “Netley.”—*Rev. F. W. Hope*.

Sp. 10. *orichalcea*. *Alis anticis fusco-purpurascensibus posticè pallidioribus, maculâ magnâ posticâ trapeziformi orichalceâ.* (Exp. alar. 1 unc. 8—10. lin.)

No. *orichalcea*. *Fabricius*.—Pl. *orichalcea*. *Steph. Catal. part ii. p. 106. No. 6384.*—Ph. No. *ærifera*. *Sowerby, pl. 29.*

Head and thorax tawny-brown or griseous, with the sides of the latter slightly violaceous; anterior wings of a purplish-brown, the base and apex rather paler, with a large trapeziform golden patch on the hinder margin, near the costa,

arising from the posterior stigma, which is very obsolete: the anterior ordinary striga is very obscure, the second simple and slightly biangulated, the third also simple, passing through the golden patch, in which it is biangulated, and terminating in a pale lunular mark on the inner margin; cilia purplish-brown: posterior wings very glossy, and of a yellowish-brown, with the base rather paler, and the nervures and hinder margin fuscous; cilia rufescent: abdomen yellowish-gray.

Caterpillar green, with a whitish dorsal line, and a broad whitish-green streak on each side, each segment with a white spot: it feeds on the hemp agrimony (*Eupatorium cannabinum*):—the imago is found in June.

Unlike the foregoing, this is an insect of considerable rarity, and but few instances have occurred of its capture near the metropolis; specimens have been found near Crayford, in Kent, and I believe in Ashdown Forest; but near Newberry, in Berkshire, the insect has been taken in some plenty by Mr. Dale, from whom I received a pair, though for several years past it seems to have disappeared. Examples have also occurred near Manchester.

Sp. 11. bractea. *Alis anticis fusco-purpurascens, maculâ magnâ angulatâ ante medium aureâ, nitidâ.* (Exp. alar. 1 unc. 8—10 lin.)

No. bractea. *Wien. Verz.*—Sowerby, pl. 28.—Pl. bractea. *Steph. Catal. part ii. p. 107. No. 6385.*

Head, palpi, and anterior margin of the thorax rich purplish-red, the latter dusky posteriorly: anterior wings marbled with purplish-brown and griseous, with the base and hinder margin palest; near the former is an obscure abbreviated striga, then another margined on each side with fuscous, considerably before the middle, rather obscure on the costa, but very distinct from the discoidal nervure to the inner edge, and placed obliquely; behind the middle is a third striga also bordered with fuscous on each side, and slightly undulated; from the apex to the anal angle is a fourth, rather indistinct, and much angulated, the space between which and the posterior margin is pale; the apex of the wing itself having an oblique darker cloud; between the second and third strigæ the disc is of a deeper hue than the rest of the wing, the costa excepted; and on the outer edge of this blotch is a brilliant, large, angulated golden spot, varying considerably in form; cilia pale purplish-brown: posterior wings ochraceous-ash at the base, with the nervures, an oblique striga, and the hinder margin, dusky; cilia ochraceous-ash, with a reddish hue near the base.

Var. β . Of a smaller size, with the discoidal spot of a silvery hue.

A native of the northern districts of England and the south of Scotland, frequenting mountains, heaths, and exposed gardens, &c. I possess a splendid example from the neighbourhood of Edinburgh, and others from Derbyshire: it has been found near Birmingham.

“On the hills near Netley, Salop.”—*Rev. F. W. Hope*. “Near Cottingham.”—*A. H. Haworth, Esq.*

Sp. 12. *Festucæ*. *Alis anticis flavo brunneoque variis maculis nitidissimè aureis punctoque minutissimè nigro.* (Exp. alar. 1 unc. 5 lin.)

Ph. No. *Festucæ*. *Linné*. *Wilkes, pl. 17.*—Pl. *Festucæ*. *Steph. Catal. part ii. p. 107. No. 6386.*

Head and thorax tawny-griseous, the latter with a transverse fuscous streak, and its sides and crest tipped with the same; anterior wings of a rich golden brown, or varied with yellow and brown, with the nervures and several oblique streaks of a darker hue, producing a reticulated appearance, especially on the inner margin, which is palest, and tinted with gold; on the costa, at the base, is a pale yellowish-brown patch glossed with gold, and towards the apex a second of a larger size; to this last is attached a brilliant oblong golden blotch, and in the centre of the wing are two other extremely glossy spots of similar hue, the basal one being somewhat triangular, and the other elongate-ovate; in the place of the posterior stigma is a minute jet-black dot; cilia reddish-brown: posterior wings fuscous, with a darker central lunule; cilia rufescent.

It varies a little in colour, and in the form and size of the golden spots on the anterior wings.

Caterpillar green, with a darker dorsal streak, and a pale yellowish mark on each segment; it feeds on the bulrush (*Typha latifolia*), *Festuca fluitans*, *Poa aquatica*, and other aquatic plants; the pupa is placed in a delicate white folliculus, situated beneath a broad leaf of the *Fescue*, which is bent down angularly for the purpose by the larva:—the imago appears about the middle of August.

Found in marshy districts, inhabiting the meadows in the vicinity of Rotherhithe; the Surrey Canal, near Greenwich, Woolwich, &c. also the ditches of Battersea-fields: but not very abundant:—it has likewise occurred on the borders of Whittlesea and Yaxley Meres.

GENUS CXLVII.—HELIOTHIS, *Ochsenheimer*.

Palpi short, scarcely ascending, densely clothed with elongate scales, the terminal joints almost concealed and somewhat conic; the two basal joints of nearly equal length, the first being slightly curved, the other straight and attenuated at the apex; terminal small, ovate, obtuse: *maxillæ* as long as the antennæ. *Antennæ* rather short, alike in both sexes, pubescent within: *head* rather small: *eyes* naked: *thorax* stout, not crested: *body* robust, slightly elongate, with a few fascicles of scales down the back; the sides and apex, especially in the males, ciliated: *wings* elongate, triangular, deflexed during repose; *anterior* entire, slightly repanded, without metallic pencillings, more

or less flavescent; cilia somewhat elongate: *posterior* rather large, of brilliant colours, with the margin and a broad central lunule darker; cilia rather long. Larva slender, mostly spotted on the sides, with sixteen legs: pupa subterranean.

The species of *Heliothis* may readily be known from the *Plusiæ* by the total absence of all metallic ornament on their anterior wings; they are however of gay and lively colours, and their posterior wings also partake of their gaiety, unlike those of the *Plusiæ*, which are generally of a sombre cast: they may also be distinguished by the absence of the thoracic crest, their abbreviated palpi, comparatively short abdomen, and by the more elongated form of the anterior wings. They fly by day, and again in the evening. From *Anarta*, with which genus they nearly agree in the proportion of the joints of the palpi, their large size and flavescent tints, as well as their subrepanded anterior wings, elongated abdomen, smooth thorax, naked eyes, &c. distinguish them.

Sp. 1. *marginata*. *Alis anticis flavo-ferrugineis strigis rufo-fuscis fuscilique externâ fuscâ, posticis luteo-albidis, limbo nigro.* (Exp. alar. 1 unc. 5—6 lin.)

No. *marginata*. *Fabricius.—Don. v. pl. 150. f. 1.—He. marginata. Steph. Catal. part ii. p. 107. No. 6387.*

Head, thorax, and anterior wings of a ferruginous-yellow, or tawny; the latter with several nearly equidistant strigæ; the first at the base a little bent exteriorly; the second beyond triangulated and flexuous; the third behind the anterior stigma angulated outwardly; the fourth placed very obliquely behind the stigmata; and behind this a broad fuscous fascia gradually shaded off to the hinder margin, and in which is placed a fifth undulated striga, composed of fuscous lunules; and on the hinder margin itself is a sixth formed of delicate united crescents: the margins of the stigmata are alone conspicuous, and are of a rufous-brown; cilia fulvous, with the tip purplish: posterior wings yellowish-white, or ochraceous, with the base, a central lunule, and the hinder margin fuscous; the extreme edge of the latter rufous-ash; cilia whitish. Anterior wings sometimes fuscous at the base; in other respects similar to the above. The ground colour of the insect varies slightly.

Caterpillar green, with reddish-brown clouds, a dusky line on the back, and a whitish stripe on each side; it feeds on the Restharrow (*Ononis spinosa*):—the imago is found in the beginning of June.

Far from an abundant species, chiefly occurring in the woods of Kent, especially at Darenth and Birch Woods; I have also seen the insect taken at Coombe-wood; and I believe it has likewise occurred in the New Forest and in Devonshire.

Sp. 2. *peltigera*. *Alis anticis lutescentibus, maculâ costalis fuscâ adjacente stigmatè reniformi, puncto gemino nigro ad angulum ani, posticis albidis, fimbriâ fuscâ.* (Exp. alar. 1 unc. 7—8 lin.)

No. *peltigera*. *Wien. Verz.*—He. *peltigera*. *Steph. Catal. part ii. p. 107*
No. 6388. Ph. *straminea*. *Don. ii. pl. 61.*

Head and thorax lutescent: anterior wings the same, with darker clouds; at the base of the inner margin is a dusky patch; on the costa, at the origin of the second ordinary striga, which is nearly obliterated, is a small brown dot, followed about the middle by a cloud of the same colour, which is united to the posterior stigma, which is reniform and of a deep fuscous; and at the apex of the costa is a second cloud of similar hue with the first; the anterior stigma is indicated by a minute black dot; and behind the posterior one, midway between it and the margin, is a double series of luteous-brown lunules, the rudiments of the third striga; the posterior margin is rather pale, and has a row of very minute black dots on its extreme edge, with two of a larger size and very conspicuous on the anal angle; cilia dusky luteous; posterior wings whitish, with a central lunule, the nervures and hinder margin fuscous; cilia white, with a luteous streak at the base.

A variable insect: in some examples the costal clouds on the anterior wings are obsolete; and the posterior margin of the same wings has sometimes a dusky fascia. In one specimen that has come under my inspection, the anterior wings are entirely suffused with fuscous, with the usual markings rather more distinct: but in neither of the indigenous specimens which I possess or have observed have I noticed the minute white dots, figured, of a silvery hue, by Donovan, and described by Haworth.

A very rare species; appearing, however, in certain years rather abundantly; in 1827, several examples were captured simultaneously in different and very distant localities; near Dover, Brighton, Birmingham, Manchester, the New Forest, Devonshire, and in and about the metropolis itself. I had formerly obtained specimens near Brighton. “York, once.”—*W. C. Hewitson, Esq.*

Sp. 3. *dipsacea*. *Alis anticis griseo-flavis fasciis duabus obscurioribus, posticis albedo nigroque variis.* (Exp. alar. 1 unc. 3—4 lin.)

Ph. No. *dipsacea*. *Linné.*—*Don. x. pl. 327. f. 3.*—He. *dipsacea*. *Steph. Catal. part ii. p. 107. No. 6389.*

Head and thorax of a greenish-fuscous or ochraceous: anterior wings of a griseous-yellow, with two irregular obscure dusky fasciæ, the first near the centre, and the second behind the stigmata, sometimes united by a dusky cloud on the inner margin; between these fasciæ, behind the posterior stigma, is a sub-quadrate luteous spot: on the hinder margin is a row of somewhat triangular dusky spots; cilia dusky luteous: posterior wings whitish, clouded with black at the base, with a broad black crescent in the centre, and the hinder margin with a black fimbria, in which is a whitish spot; cilia whitish.

This insect is subject to considerable variety: in some specimens the anterior wings are luteous-ash, with the fasciæ nearly visible; in others they are as above, with the fasciæ much suffused over the surface; the colour of the posterior wings also varies; in one specimen which I possess they are luteous, varied with black as above:—this example closely resembles *Noctua scutosa* of Hübner, but it is in too bad a condition to determine its identity.

Caterpillar red, with a cinereous head, the body with interrupted whitish lines; it is polyphagous, feeding upon various species of teasle (*dipsacus*), plantain, dock, &c.:—the imago appears about the middle of July.

Also an uncommon species; found occasionally flying in the clover fields, by day, near Darenth-wood; and in 1818 I saw three or four specimens in the beginning of August, sporting about the vicinity of Broadstairs: it has been taken in the New Forest by Mr. Dale; and near Brighton and Dover. “Parley-heath, Hants, not uncommon.”—*Mr. Ingpen*.

GENUS CXLVIII.—ANARTA, *Ochsenheimer*.

Palpi short, very densely clothed with elongate hair-like scales, the terminal joint concealed; the two basal joints of equal length; the basal stout, slightly curved, the second rather more slender, sublinear, terminal very minute, subglobose: *maxillæ* as long as the antennæ. *Antennæ* similar in both sexes, pubescent within: *head* small: *eyes* globose, sometimes pubescent: *thorax* obscurely crested: *abdomen* short, robust or slender, the sides and apex ciliated: *wings* deflexed during repose; *anterior* sublanceolate, or triangular, entire; *cilia* short; *posterior* rather small, of lively colour, with a dark fimbria; *cilia* very robust. Larva naked, spotted, with sixteen legs; pupa enclosed in a folliculus on the ground.

Anarta (which with propriety might be formed into two genera; the first embracing the typical species, with a robust body, pubescent eyes, sublanceolate gaily coloured anterior wings, obscurely crested thorax, &c.; the second, which I had provisionally called *Gymnopa* in my MS., containing those with the body slender, eyes naked, anterior wings subtriangular, and rather sombre, the thorax smooth, palpi very short and nearly concealed in the scales of the front) may be known from the preceding genera by the pubescence of its eyes, or the relative slenderness of the abdomen, exclusively of the proportions of the articulations of the palpi, of which the terminal joint is nearly obsolete, and the two basal ones nearly of an equal length as in *Heliothis*; from which genus the subcrested hairy thorax distinguishes the typical species, and the tenuity of the abdomen the remainder. Like the three

preceding genera they fly by day, a little before noon, and in the afternoon and evening.

Sp. 1. Myrtilli. *Alis anticis rufo-ferrugineis, maculâ mediâ strigisque flexuosis albidis, posticis luteis, fimbriâ latâ nigrâ.* (Exp. alar. 10—12. lin.)

Ph. No. Myrtilli. *Linné.*—An. Myrtilli. *Curtis*, iii. pl. 145.—*Steph. Catal.* part ii. p. 107. No. 6390.

Head and thorax reddish-brown, streaked with yellowish-white; anterior wings of a rich ferruginous-red, with various whitish undulated strigæ, and whitish fuscous clouds; the second and third ordinary strigæ margined with dusky, the former on its outer, and the latter on its inner, edge, forming a sort of dolabriform fascia, in which is placed a conspicuous white spot of an irregular shape; the posterior striga is of a whiter hue than the others, and is very much waved; cilia fuscous, spotted with white at the apex: posterior wings luteous, with a broad deep fuscous or black marginal band; cilia luteous: abdomen dusky, the margins of the segments whitish.

Var. β. With the anterior wings deep fuscous, with a rufous tint, with a small pyramidal white spot, and a posterior waved white striga; cilia and posterior wings as in Var. α.

In intensity of colouring, and the strength and position of the whitish strigæ, there is considerable variation.

Caterpillar grass-green, with a bluish head; each segment irregularly spotted with elongate luteous and white marks, with an irregular black dorsal and lateral line, the latter edged with white beneath; it feeds on the whortleberry (*Vaccinium Myrtillus*) and heath:—the imago appears the middle of June, and continues to the end of July.

This elegant insect is not uncommon in several parts of England, though it appears to be rather local, and to frequent heathy and exposed situations, where it may sometimes be observed flying swiftly and irregularly in plenty “in the solar rays.” I have taken it occasionally near Darenth, and have received it from the New Forest, and Devonshire: it also occurs in Norfolk. “York and Newcastle, on heaths.”—*W. C. Hewitson, Esq.* “In profusion on the heaths near Marton, in 1827.”—*L. Rudd, Esq.* “Parley-heath, abundantly.”—*Mr. Ingpen.*

† Sp. 2. cordigera. *Alis anticis nigris, fasciis undatis stigmatæque albis, posticis flavis margine nigro.*

No. cordigera. *Thunberg.*—An. cordigera. *Curtis (!)*—*Steph. Catal.* part ii. p. 108. No. 6391, note.

Head and thorax black: anterior wings dusky-black, with a quadrate marginal whitish patch at the base, a reniform white spot a little behind the middle, the hinder margin cinerascens, with a fuscous band: posterior yellow, with a broad fuscous fimbria.

Sp. 3. *Heliaca*. *Alis anticis subcupreo-fuscis, fasciâ posticâ pallidiore, strigâque medio flexuosâ nigrâ; posticis nigris, faciâ medio luteâ.* (Exp. alar. 7—9 lin.)

No. *Heliaca*. *Wien. Verz.*—An. ? *Heliaca*. *Steph. Catal. part ii. p. 108. No. 6392.*
—Ph. No. *Arbuti*. *Don. x. pl. 343. f. 3.*—*Gymnopa Heliaca*. *Steph. Nomen. second edition.*

Head, thorax, and abdomen deep fuscous, the two former with whitish dots, and the latter annulated with the same; anterior wings of a glossy coppery brown, with an irregular flexuous black striga in the middle, followed by an obscure broad indefinite palish band, between which and the hinder margin is an undulated pale cinereous striga; cilia luteous and black alternately; posterior wings black, with an irregular luteous fascia in the middle; cilia luteous.

The luteous fascia on the posterior wings varies in breadth and colour.

Not uncommon in the vicinity of London, flying in the afternoon in weedy lanes and meadows, on the borders of woods, especially at Coombe and Colney-hatch; also near Darenth and Birch woods, Hertford, Ripley, the New Forest, &c. “York.”—*W. C. Hewitson, Esq.* “Epping.”—*Mr. H. Doubleday.* “Coleshill and Warwick.”—*Rev. W. T. Bree.* “Netley.”—*Rev. F. W. Hope.*

GENUS CXLIX.—ACONTIA, *Ochsenheimer.*

Palpi rather short, curved upwards, and clothed with short compact scales, the terminal joint distinct and conical; the basal joint nearly two-thirds the length of the second, a little bent; the second also curved, rather acute at the tip; the terminal elongate, slender, attenuated, acute: *maxillæ* as long as the antennæ. *Antennæ* alike in both sexes, simple, pubescent beneath: *head* rather broad: *eyes* naked: *thorax* slightly crested; *abdomen* slender; *wings* deflexed during repose, entire; *anterior* rhomboidal; cilia rather long; *posterior* slightly notched on the hinder margin. Larva fusiform, naked.

The *Acontia* are all rare, and remarkably handsome; their prevalent colours are white or cream colour, blotched or fasciated with black or fuscous; they fly by day in the sunshine, and are distinguished with facility from the insects of the preceding genus, by the

In Mr. Haworth's collection is a specimen of an insect closely resembling one of the varieties of *An. Myrtilli* above described, which Mr. Haworth presumed might be identical with Hübner's No. *albirena*, or the No. *cordigera* of Thunberg; but the specimen in question evidently belongs to *An. Myrtilli*; consequently the existence of *An. cordigera* in England is problematical, as no specimen is preserved in any of the numerous collections that have come beneath my observation.

comparative nudity of the palpi, and by the dissimilar proportions of their joints, as well as by their pied appearance, by which they may be readily known from the *Erastræ*.

Sp. 1. *luctuosa*. *Alis anticis fuscis nigro strigatis, maculâ costali roseo-albâ; posticis nigris fasciâ mediâ albâ.* (Exp. alar. 1 unc. 1—2 lin.)

No. *luctuosa*. *Hübner*.—Ac. *luctuosa*. *Steph. Catal. part ii. p. 108. No. 6393.*

Black or fuscous; the thorax behind red-brown; the abdomen with the segments edged with white: anterior wings deep fuscous, with black undated strigæ, with a large trapeziform white spot, tinted with rosy on the costa, behind the middle, the hinder margin irregularly undulated with black and white, with a patch of the latter colour on the anal angle, and the margin itself with an interrupted rufescent line; cilia white, with a dusky blotch in the middle: posterior wings black, with a broad, slightly waved, white fascia in the middle, and an obsolete spot of the same colour, near the anal angle; cilia white, with a dusky patch as on the anterior wings.

In some examples, the white fascia in the posterior wings is very narrow, and considerably attenuated towards the inner margin; and the white spot near the anal angle is obliterated.

The caterpillar is reported to feed on the great plantain (*Plantago major*):—the imago appears in June, frequenting clover-fields.

Not common; the only localities that I am acquainted with are a field to the north-east of Darent-wood, and a chalky ridge near Hertford, where I have occasionally obtained a few specimens: it, however, occurs in other parts. “Dorking.”—*Mr. Waterhouse*.

†Sp. 2. *aprica*? “*Alis anticis basi albis; posticè maculisque duabus costalibus atris.*”—*Haworth*. (Exp. alar. 1 unc. 1? lin.)

No. *aprica*. *Hübner*?—Ac. *aprica*? *Steph. Catal. part ii. p. 108. No. 6394.*

The above is the sole description which exists of the only indigenous specimen known. Mr. Haworth, who describes the insect, as above, under the name *albo-ater*, remarks, “that it comes very near the No. *aprica* of Hübner, and perhaps is not distinct from it. If it be that insect, the following character from Treitschke will enable any one to discriminate it who may be fortunate enough to obtain a specimen: “*Alis anticis basi niveis, versus marginem externum fusco cœruleoque marmoratis, puncto medio nigro; posticis albis.*”

I believe a single example only of this insect has been captured in England: it was taken nearly half a century since by Mr. Tinley, and now is in the collection of Sir John St. Aubyn, along with some other unique moths.

Sp. 3. *Solaris*. PLATE 29. f. 3.—*Alis anticis basi albis apice fuscis, maculâ quadratâ costali albâ; posticis albis fimbriâ fuscâ.* (Exp. alar. 1 unc. 5 lin.)

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No. Solaris. *Wien. Verz.*—Ac. Solaris. *Steph. Catal. part ii. p. 108. No. 6395.*

Head and thorax white, immaculate: anterior wings white at the base, with a minute deep-black spot thereon, and a larger fuscous one on the costa; the posterior half of the wing is fuscous, the white of the base forming an acute angle on the disc; a little beyond the middle on the costa is a large quadrate white spot, adjacent to which is a black one on the fuscous ground; the anal angle of the hinder margin is white, with three bluish-ash clouds; the hinder margin itself is rather cinerous, and the posterior stigma has its margins bluish-white, forming the figure 8; on the hinder margin is a row of minute black dots; cilia fuscous, with the portion at the anal angle white: posterior wings creamy-white, with a broad fuscous fimbria; cilia white.

Caterpillar griseous, striated, with the head testaceous, each segment with two white spots:—it feeds on the trefoil (*Trifolium*), dandelion (*Leontodon Taraxicum*), &c. &c.

A single specimen of this insect, whence the accompanying figure was designed, was in the late Mr. Marsham's collection, but of its locality I am not aware; two examples were, however, taken within the metropolitan range about ten years since, and four others near Dover above six years ago; all but the first were rescued from oblivion through the zeal of Mr. Stone.

†Sp. 4. *Caloris. Alis anticis basi niveis, cæruleo strigatis, reliqua parte fusco cæruleoque marmoratis, maculâ albâ ad marginem anteriorem quadratâ; posticis albidis, fasciâ latâ fuscâ.* (Exp. alar. 1 unc. 4 lin.?)

No. *Caloris. Hübner.*—Ac. *Caloris. Steph. Catal. part ii. p. 109. No. 6396.*

Head fuscous; thorax white, with yellowish shades; anterior wings snow-white at the base, with bluish strigæ; the rest of the wing marbled with bluish and fuscous, with a quadrate white spot on the costa, as in the foregoing insect; on the hinder margin is an undulated whitish striga; cilia part brown, part white, with black dots: posterior wings whitish, with a broad fuscous marginal band; cilia white.

Of this beautiful insect also a single example only is known; it formed one of the prominent ornaments of Mr. Plasteed's collection; of its locality I am ignorant.

†Sp. 5. *nigrireana. Alis albidis fusco maculatis, stigmatе antico punctiformi, postico magno reniformi nigro.* (Exp. alar. 1 unc. 2 lin.)

Phy. *nigrireana. Haworth.*—Ac. *nigrireana. Steph. Catal. part ii. p. 109. No. 6397.*

Wings whitish, spotted with fuscous: the anterior stigma very small; the posterior large, reniform, black.

The above description was made several years since by Mr. Haworth from the specimen mentioned below:—I have seen the one in question, and ascertained

that it belonged to the present genus, but unfortunately omitted to draw up a more particular description at the time; I cannot therefore venture to add to the above.

In Mr. Swainson's collection is a specimen of this species; but its locality is unknown.

GENUS CL.—EUPHASIA *, *miki*.

Palpi short: *maxillæ* as long as the antennæ? *Antennæ* simple, slightly pubescent within: *head* broad: *eyes* naked: *thorax* smooth: *abdomen* rather elongate, moderately stout, with a slight caudal tuft; wings deflexed during repose, entire, glossy; *anterior* elongate-lanceolate, the hinder margin rounded: *posterior* rounded: *cilia* rather long.

My constant endeavour in the prosecution of this work being to precede rather than to follow other writers, I cannot consistently unite the present genus with *Acontia*—a genus proposed by Ochsenheimer nearly twenty years since, although by such proceeding the charge of innovation may be imputed to me, a convenient term which is usually employed in default of argument to designate every successive advance of science by those persons who are apparently not only desirous that their contemporaries should not progress beyond their own limited and capricious views, but pronounce every advance as futile. Do we not, for example, repeatedly hear the disciples of the Linnean school term the system of Fabricius an innovation; while those of the latter are equally liberal in the application of the same term to that of Latreille; the adherents to which last, in their turn, reiterate that epithet to those who venture to differ from the Latreillian arrangement? As, however, such imputations have no more weight with me than if they were written in letters of sand upon the briny waves, I shall detach the present genus from *Acontia*; although, unfortunately, I have merely had a transient glance of the insect (some years since) which forms the type, and which apparently belongs to a sub-tropical group differing from the *Acontia* by having the anterior wings very glossy, elongate-lanceolate, rounded behind; the posterior rounded; the head broad; thorax stout; body rather elongate; and in the texture and colouring of the wings.

* *Eu*, bene; *φασίς*, apparitio.

† Sp. 1. catena. "*Alis albissimis, fasciâ posticâ, maculisque duabus costalibus fusco olivaceis strigâque punctorum confertorum fuscorum subocellatorum marginali.*"—Haworth. (Exp. alar. 1 unc. 4 lin.)

Ph. No. catena. Sowerby, pl. 14.—*Desmophora elegans*. Steph. Catal. pt. ii. p. 109. No. 6398.—Ac. catena. Curtis, vi. pl. 276.

"Pale cream colour, shining: antennæ ochreous: eyes brown: superior (anterior) wings sub lanceolate, with a brown and grey spot at the base upon the costa, margined with yellow, and having three pale lines across; a triangular one of the same colour at the middle of the costa; the posterior margin with a lilac-coloured fimbria, the internal edge yellow; close to the base of the cilia, which is (are) yellowish lilac, is a line of white spots with lilac centres, forming a chain and decreasing in size to the apical one, which is oblong; that at the posterior angle being the largest, bearing a dark purple spot, with a lilac centre, and a semicircular ochreous line on the outside. Inferior (posterior) wings pearly white, a small portion of the margin slightly tinged with yellowish-brown."—Curtis, l. c.

Said to have been taken by Mr. Plasteed at Brixton, in Surry, about the middle of September.

GENUS CLI.—ERASTRIA, *Ochsenheimer*.

Palpi moderate, slender, distant, slightly curved, porrected obliquely, clothed with short dense scales, the terminal joint more or less exposed and acute; basal joint about one-third the length of the second, which is elongate and a little clavate, with its apex obliquely truncate, terminal shorter and more slender than the basal, ovate obtuse: *maxillæ* about as long as the antennæ. *Antennæ* similar in both sexes, rather short, simple, finely ciliated within, the basal joint rather stout: *head* short: *eyes* moderate, naked: *thorax* slender, not crested: *abdomen* also slender, with a small tuft at the apex, and sometimes crested down the back: *wings* during repose nearly horizontal, and slightly expanded, forming a triangle; *antennæ* rather long, with the costal angle somewhat acute, the posterior margin sometimes slightly rounded; *posterior* rather large, rounded; *cilia* somewhat elongate. Larva slender, half-looper, with ten? legs: pupa folliculated.

The insects of this genus are generally as rare as they are beautiful, and are amongst the smallest of the Noctuidæ: from Acontia, to which they are closely allied, they differ in having the palpi rather shorter, by their more elongate form, and dissimilarity of colouring; but the genus as it at present stands is artificial, the two last species differing considerably from the others; their flight is diurnal.

Sp. 1. sulphuralis. *Alis anticis sulphureis, maculis lineisque atris, posticis fuscis.* (Exp. alar. 10—11 lin.)

Ph. Py. sulphuralis. *Linné.—Don. x. pl. 339. f. 1.—Er. sulphurea. Steph. Catal. pt. ii. p. 109. No. 6399.*

A beautiful species; head and thorax sulphureous, with dusky-black spots: anterior wings sulphur-yellow, with three black spots on the costa, and two on the disc; at their base two stout black streaks arise running parallel with the inner margin, and reaching about two-thirds the length of the wing, where they are united by an undulated black striga arising on the costa, and in fine specimens glossed with a silvery hue, and parallel with the latter is another waved striga, of a deep black, and sometimes interrupted; the hinder margin itself is irregularly black; the cilia are black, with a whitish patch near the apex of the wing, and a smaller one towards the anal angle; posterior wings dusky-black, with a whitish fringe: body grey-brown, with yellowish belts.

The discoidal black spots on the anterior wings are sometimes confluent with the outer oblique striga; and the oblique strigæ are occasionally united by two slender black lines a little beyond the middle.

Caterpillar grass-green with a black dorsal line, and yellowish lateral streak, with a few white spots above: it feeds on the convolvulus arvensis:—the imago appears about the middle of July in clover-fields.

A rare species: it has been occasionally captured in Battersea-fields, flying about during the daytime amongst flowers; it has also occurred near Margate, and in other parts of Kent.

Sp. 2. *uncana. Alis anticis fuscis, margine anteriori albido, medio ramum recurvum exserente. (Exp. alar. 11—12 lin.)*

Ph. Ge. *uncana. Linné.—Er. uncana. Steph. Catal. pt. ii. p. 109. No. 6400.*

Head and thorax reddish-grey: anterior wings fuscous, with the anterior margin white, its inner edge silvery, the costa itself fuscous; in the middle of the disc, united to the whitish margin, is an oblique stigmatiform patch, with its centre slightly fuscous and margins snowy, the latter sometimes throwing off a twig towards the posterior margin; behind this is an abbreviated white streak nearly parallel with the posterior margin, and bearing a delicate fuscous striga, and the margin itself is white, with a fine brownish line interiorly: posterior wings fuscous; all the cilia fuscous, with a darker line near the base.

Caterpillar green, with a paler lateral line; it feeds on Carices:—the imago appears towards the end of June.

Considerably more abundant than the preceding species; occurring in some plenty on the borders of Whittlesea-mere, and in marshy places in Norfolk; in the New Forest, Hants, and in Devonshire.

Sp. 3. *Bankiana. Alis anticis olivaceo-fuscis, fasciis duabus niveis, exteriore undulatâ. (Exp. alar. 10—11 lin.)*

Py. *Bankiana. Fabricius.—Er. Bankiana. Steph. Catal. pt. ii. p. 109. No. 6401.*

Head and thorax white and olive-green mixed, the latter with a slight tinge of yellow: anterior wings olive-green, with a small white patch at the base

of the costa, two oblique parallel snowy-white, somewhat silvery, fasciæ, broadest on the costa, and attenuated towards the inner margin, the second fascia arising rather beyond the middle of the costa and reaching to the anal angle, and throwing off a denticulation interiorly at a little distance from its origin; near the apex of the costa is a small comma-shaped white spot, and the hinder margin is white: cilia white, with minute olivaceous dots: posterior wings greyish-white irrorated with olive; cilia white.

Caterpillar green, with a whitish lateral line:—the imago appears towards the end of June or beginning of July.

This species was originally described by Fabricius as a native of England; but till within these ten years no indigenous cabinet that I have inspected contained an example: about the above period Mr. Haworth found a considerable number of specimens in Norfolk, I believe near Beachamwell, amongst reeds and rushes in a boggy situation, and kindly supplied me with specimens.

Sp. 4. *venustula*. *Alis anticis albidis, medio margineque externo fuscis, vittâ mediâ rosâ punctoque nigro.* (Exp. alar. 8—9 lin.)

No. *venustula*. *Hübner*.—*Er. venustula*. *Steph. Catal. pt. ii. p. 109. No. 6402.*

Head and thorax whitish-grey: anterior wings whitish, or rather marbled with brown and whitish, the hinder margin and a triangular patch behind the disc being of the latter colour, with a rosy vitta, and a rather conspicuous elongate black spot about the centre of the wing; between this patch and the posterior margin are some delicate pale fuscous and whitish strigæ, and at the base of the wings two or three undulated ones of the former hue; near the apex of the costa is a fuscous patch; the cilia are brown with a rosy tinge, and spotted with dusky: posterior wings whitish-brown, with rosy-white cilia. Caterpillar reddish-brown, with two broad orange-yellow belts, and a dusky dorsal stripe, and curved lateral streaks.

An extremely rare species, of which I have hitherto seen four examples only;—a pair in my own cabinet; one of the latter taken, I believe, in Epping Forest by the late Mr. Honey, the other by the late Mr. Bentley.

Sp. 5. *minuta*. *Alis anticis albis, postice fasciis duabus irregularibus olivaceo-flavescentibus, strigâque punctorum minorum atrorum.* (Exp. alar. 9 lin.)

No. *minuta*. *Hübner*?—*Er. minuta*. *Steph. Catal. pt. ii. p. 109. No. 6403.*

Head and thorax of a creamy-white: anterior wings the same, with an irregular rather broad olivaceous-yellow fascia a little beyond the middle, in which are some tints of rufous and lead-colour, arising from two distinct costal spots, and nearly obsolete for a short distance from its origin; behind this is an undulated white strigæ, and then a second fascia of olivaceous-yellow, clouded as before, and bearing, parallel with, and near, the hinder margin a distinct row

of minute dusky black dots; cilia olivaceous-brown, clouded with white: posterior wings ashy-white, with dusky margins; cilia whitish.

Of this insect I have also seen but few specimens, none of which have been captured within these forty or fifty years. I am not aware of their locality, but suspect they were taken in the west of England.

† Sp. 6. *ostrina*. *Alis anticis albo flavidis, striis longitudinalibus amethystinis strigâque externâ dentatâ albâ.* (Exp. alar. 9 lin.)

No. *ostrina*. Hübner.—Er. *ostrina*. Curtis, iii. pl. 140. Steph. Catal. pt. ii. p. 109. No. 6404.

“Pale ochraceous; thorax with the centre and lateral scales cinereous, margined with ochre: abdomen whitish-cinereous: superior (anterior) wings slightly cinereous towards the base, with a ferruginous lateral (?) line, a dull irregular orange space extending across the centre, with a little obscure circle upon it, next to which is a lilac and brown fascia with blackish nervures, white and rosy towards the costa, upon which are four white spots; this fascia is bounded next the posterior margin by a sinuated white line dentated internally: cilia very long, pale at the base; posterior wings whitish, tinged with ochre, fuscous towards the margin.”—Curtis, l. c.

One example only of this species has hitherto been captured in England; it was found in a lane near Bideford in Devonshire by Captain Blomer, in June, 1825.

† Sp. 7. *apicosa*. *Alis anticis a basi post medium nitidis nigricantibus, limbo stigmatibusque purpurascentibus.* (Exp. alar. 1 unc.)

Phy. *apicosa*. Haworth.—Er. *apicosa*. Steph. Catal. pt. ii. p. 109. No. 6405.

Fuscous; anterior wings of a glossy black or dusky from the base to beyond the middle, with the hinder margin and stigmata purplish: posterior wings fuscous, with a darker central spot.

Of this species I have seen but three specimens, but of their locality I am not aware; two are in the collection of Mr. Haworth, the other in that of Mr. Stone.

Sp. 8. *fuscula*. *Alis anticis fuscis strigis saturatoribus, maculâ ad angulum analem strigâque externâ albâ.* (Exp. alar. 1 unc.)

No. *fuscula*. Wien. Verz.—Er. *fuscula*. Steph. Catal. pt. ii. p. 110. No. 6406.

Head and thorax fuscous, dusted with white; anterior wings the same, with irregular transverse undulated and flexuous strigæ of a pale hue with dark edges, the ordinary stigmata being rather conspicuous, the anterior round and cinerascens, with a darker edge, the posterior reniform, fuscous with a whitish margin, and the space between them black or deep fuscous; near the latter, towards the inner margin, is the rudiment of a third stigma; and

towards the anal angle is a conspicuous, somewhat lunular, white spot, behind which is a flexuous transverse white striga, reaching from the costa to the inner margin; and on the hinder margin is an interrupted black line; cilia cinereous, spotted with fuscous: posterior wings fuscous; cilia whitish-ash, with a dusky line at the base: abdomen with dorsal tufts.

Caterpillar yellow, with a broad reddish dorsal streak, and slender lateral line;—it feeds on the bramble (*Rubus fruticosus*):—the imago appears towards the end of June.

This and the following insect do not well associate with the rest of the genus.

Not common: found near Chisselhurst and Bexley woods, also at Coombe and Colney-hatch.

Sp. 9. *albidilinea*. *Alis anticis fusco nigro alboque varie cinereis, strigâ flexuosâ albâ pone stigmatâ; posticis fuscis.* (Exp. alar. 1 unc.)

Phy. *albidilinea*. *Haworth*.—*Er. albidilinea*. *Steph. Catal. pt. ii. p. 110. No. 6407.*

Similar to the last, from which it differs chiefly in the absence of the white blotch near the anal angle of the anterior wings, and in having the flexuous striga towards the hinder margin nearly obliterated.

Probably a suffused variety of the foregoing.

Found with the preceding species, but very rarely.

GENUS CLII.—PHYTOMETRA, *Haworth*.

Palpi short, somewhat recurved, rather slender, distant, clothed with short scales, the terminal joint considerably exposed, slender, acute; basal joint shorter than the second, rather stout, reniform, second elongate, subclavate, acuminate at the tip, terminal very slender, as long as the second, aciculated; *maxillæ* moderate. *Antennæ* slender, short, alike and nearly filiform in both sexes: *head* smooth: *eyes* naked: *thorax* slender, not crested: *abdomen* small, robust, and conical at the tip in the female, slightly tufted in the males: *wings* entire, anterior somewhat triangular, acute at the apex, without stigmata; *posterior* rounded: *cilia* broad: *posterior* legs elongated; simple. Larva and pupa unknown.

Amidst the overpowering quantity of names which modern naturalists require in order to discriminate the numberless groups demanded by the present state of science, it is almost impossible to avoid occasionally imposing a term that has been elsewhere employed*, of which the one applied to the present genus by Och-

* *Zerynthia*, applied by Ochsenheimer in 1816 to a genus of *Papilionidæ* and republished in England within this twelvemonth, has, from a useless propensity to change, been

senheimer offers a remarkable example: his name (*Anthophila*) having been originally applied, in 1804, by Illiger, to a genus of bees, and in 1811, by Haworth, to a genus of *Lepidoptera* (*Simaëthis*, *Syst. Cat. pt. ii. p. 161*):—according therefore to the principles of modern nomenclature, Ochsenheimer's name must be changed, though, upon the same principles, it is not quite correct to employ that which is here adopted in order to avoid unnecessary increase by the imposition of a new one:—the slender aciculated terminal joint of the palpi sufficiently discriminates it from the other semidiurnal Noctuidæ.

Sp. 1. *ænea*. *Olivaceo-fusca, alis anticis fasciâ obliquâ pone medium marginique postico late purpuris.* (Exp. alar. 7—9 lin.)

No. *ænea*. *Wien. Verz.*—Phy. *ænea*. *Steph. Catal. pt. ii. p. 110. No. 6408.*

Olive-brown; anterior wings the same, with an oblique purplish fascia beyond the middle, and another on the hinder margin, separated by an undulated obsolete olivaceous striga; cilia purplish with the tips paler: posterior wings with the hinder margin purplish, cilia as before.

This species varies considerably both in size and colour: some examples are of a deep pitchy-brown, with scarcely a rudiment of purple; others are cinerascens, or fuscous, with the fasciæ and striga more or less distinct; in some the latter is of a cinereous hue, and is continued through all the wings, the posterior having also two purplish fasciæ.

Not very uncommon on heaths near London towards the end of August; it occurs near Birch and Darent woods, Coombe, Ripley, Hertford, &c. “Cobble Hall.”—*T. C. Heysham, Esq.*

GENUS CLIII.—ACOSMETIA*, *mihi*.

alpi short, porrected obliquely, densely clothed with rather long scales, the terminal joint short and obtuse; basal joint as long as the second, robust, nearly straight, second subcylindric, obtuse at the apex, terminal minute, ovate-conic: *maxillæ* as long as the antennæ. *Antennæ* moderate, faintly pectinated in the males, simple in the females: *head* small, slightly crested between the antennæ; *eyes* naked; *thorax* small, not crested; *body* slender, tufted at the apex in the males, acute and more robust in the females; *wings*

recently employed to designate an artificial genus of *Geometridæ*; it must consequently be expunged; and as there does not appear sufficient cause for ejecting the type of Treitschkes' genus *Cidaria* therefrom, I shall retain this latter application in the following arrangement for such species of the group as seem strictly to belong thereto, as placed in my *Systematic Catalogue*.

* *Ακοσμητον*, *inornatum*.

entire, of plain nearly uniform tint; *anterior* elongate-triangular, without stigmata, the hinder margin slightly rounded, its apex obtuse; *posterior* rounded, slightly emarginated; *cilia* rather short: *legs* slender, moderate; posterior simple. Larva and pupa unknown.

The insects of this genus have their wings nearly destitute of markings, being usually of plain uniform sombre tints,—hence the name I have applied to them; they may be known from the preceding genus by their somewhat elongated, obtuse anterior wings, and the slight frontal crest, with the faintly pectinated antennæ of the males, and the short obliquely porrect palpi, with a minute ovate-conic terminal joint in both sexes. The species which I have captured fly by twilight, but *A. caliginosa* is said to enjoy the sunshine.

Sp. 1. *lutescens*. *Alis anticis subunicoloribus sordide rufo-lutescentibus ad marginem crassiorem rufis; posticis subfuscis*. (Exp. alar. 1 unc. 1—2 lin.)

Phy. *lutescens*. Haworth.—Ac. *lutescens*. Steph. Catal. pt. ii. p. 110. No. 6409.

Anterior wings of a dull nearly concolorous reddish-clay, with the costa somewhat of a brighter red; the posterior pale fuscous; cilia of all rufescent, of the anterior darkest.

My specimen has the wings entirely of an ashy-clay, with a very faint red tint, minutely irrorated with dusky, especially in the direction of the nervures; the cilia slightly clouded with dusky at the apex.

Two examples only of this species have come beneath my observation: one in the collection of Mr. Haworth, but of unknown locality; the other in my own, taken in Hampshire, near Lyndhurst, in July, 1821.

Sp. 2. *caliginosa*. *Alis anticis rufo aut fusco grisescens strigis obsoletis obscurioribus; posticis griseis*. (Exp. alar. 1 unc. 1 lin.)

No. *caliginosa*. Hübner.—Ac. *caliginosa*. Steph. Catal. pt. ii. p. 110. No. 6410.

Ashy-brown; anterior wings of a fuscous or reddish-griseous, with two very obsolete transverse dusky strigæ towards the middle, the second slightly arcuated; and towards the hinder an almost obliterated undulated one of a paler hue; the hinder margin itself has a faint dusky line; cilia uniform with the wings: posterior wings griseous; cilia fuscous.

In some examples the transverse strigæ are more evident than in my specimen, which is a female.

A pair of this insect, in the collection at the British Museum, one in that of Mr. Stone, and another in my own, complete the series which have passed beneath my inspection: the two last-mentioned

specimens were captured in the New Forest, the former by Mr. Weaver in June, 1828, the latter in June, 1821, by another collector.

Sp. 3. *rufa*. *Alis anticis ciliisque rufis unicoloribus, posticis ciliisque pallidis strigâ mediâ macularum obscurarum.* (Exp. alar. 10—11 lin.)

Phy. *rufa*. Haworth.—Ac. *rufula*. Steph. Catal. pt. ii. p. 110. No. 6411.

Head white; anterior wings and cilia of a plain uniform rufous; posterior pale with an obscure transverse striga of minute dusky spots a little behind the middle; cilia pale.

On the anterior wings is sometimes an obsolete striga of minute dusky dots, parallel with, and near to, the hinder margin.

Rare: found in Norfolk and near Whittlesea-mere.

Sp. 4. *lineola*. *Alis anticis griseo-rufis lineolâ longitudinali strigâque posticâ punctorum fuscorum; posticis pallidioribus strigâ pone medium macularum obscurarum.* (Exp. alar. 10—11 lin.)

Ac. *lineola, mihi*. Steph. Catal. pt. ii. p. 110. No. 6412.

Somewhat resembling the last, but the anterior wings shorter: head hoary: anterior wings griseous-red, minutely speckled with dusky, with a longitudinal fuscous streak at the base, and a faint posterior striga of minute fuscous dots; the nervures on the hinder margin of the wing are rather dusky, and the cilia rufescent: posterior wings of a paler hue, with an arcuated striga of minute fuscous dots behind the middle; cilia pale.

In one of my specimens there is a second longitudinal streak on the anterior wings arising at the base of the first, running somewhat parallel with the costa, and forming an acute angle with the first; resembling an elongate roman V.

My specimens were captured, I believe, on the borders of Cambridgeshire and Norfolk.

Sp. 5. *arcuosa*. *Alis anticis sordide albo-lutescentibus strigis duabus punctorum minutissimorum fuscorum.* (Exp. alar. 1 unc. 1 lin.)

Phy. *arcuosa*. Haworth.—Ac. *arcuosa*. Steph. Catal. pt. ii. p. 110. No. 6413.

Head white or hoary; thorax cream-colour; anterior wings of a dull whitish-clay, with two rosy obsolete strigæ of minute fuscous spots, the first straight and placed before the middle, the second arcuated and situated beyond the middle, and between them in the middle of the wing a single larger fuscous dot; near the posterior margin is an undulated pale striga, and on the costa are some fuscous or dusky dots; cilia pale, with a dusky streak at the base: posterior wings fuscous; cilia ochraceous.

In some examples the arcuated series of fuscous dots on the anterior wings is very distinct; in others the first striga is nearly obliterated.

Not a very common species; found in Copenhagen-fields, near

Hertford, and in the vicinity of Ripley. "Epping."—*Mr. Doubleday*. "Shirley-common."—*Mr. Ingall*.

GENUS CLV.—*STILBIA* *, *mihi*.

Palpi short, remote, slightly curved upwards, densely clothed with compact scales to the apex, the terminal joint not distinct; basal joint nearly as long as the second, subcylindric, second rather bent in the middle and a trifle attenuated at the apex; terminal minute ovate, obtuse: *maxillæ* as long as the antennæ. *Antennæ* simple in both sexes, pubescent beneath in the males, the basal joint robust: *head* rather broad, the forehead densely clothed with scales; *eyes* rather large, naked: *thorax* not crested: *wings* entire, very shining, *anterior* elongate, sublaneolate, with distinct stigmata; *posterior* large ovate-triangular: *legs* moderate; *posterior* simple, with the *tibiæ* rather stout.

Although many of the semidiurnal Noctuidæ are distinguished by the glossiness of their wings, that quality more eminently characterizes the present genus, which, combined with the form of the wings, gives it much the appearance of one of the *Pyalidæ*, but its short legs and stigmatiferous anterior wings remove it at once from that family, exclusively of its other discrepancies, in the structure of its palpi, &c.: its metamorphoses are unknown.

GENUS CLIV.—*SCOPELORUS*, *mihi*.

Antennæ simple: *body* slender, acute at the apex; *wings* triangular, entire, *anterior* without stigmata; *legs*, *posterior* stout, very hairy, producing fascicles of elongate hairs resembling a large brush.

I regret being unable to give a more detailed account of this singular genus from not possessing specimens; its remarkable posterior legs well distinguish it from the others of the family.

†*Sp. 1. inops*. "*Alis anticis lutosis, fasciâ subfuscâ posticâ obliquâ pyramidalî*."—*Haworth*.

Phy. scopulæpes. *Haworth*.—*Sc. inops*. *Steph. Catal. pt. ii. p. 110. No. 6414*.

Luteous; *anterior* wings with a slender conical or pyramidal fascia towards the hinder margin, extending obliquely nearly to the apex, and terminating in an obsolete striga of fuscous dots; *posterior* wings and cilia also luteous, with a stout posterior, striga and marginal fascia fuscous.

A specimen of this insect (which appears to be a native of Georgia) was in the late Portland collection.

* Σπιλβη, *nitor*.

Sp. 1. *anomalata*. *Alis anticis cinereo fuscescentibus nigro subnebulosis, stigmatibus ordinariis pallidis divaricatis; posticis pallidis.* (Exp. alar. 1 unc. 4—6 lin.)

Phy. *anomalata*. *Haworth.*—*St. anomalata*. *Steph. Catal. pt. ii. p. 110. No. 6415.*

Head and thorax deep lead-coloured fuscous; anterior wings of a glossy ashy-brown, the costa darkest, with two rather obscure fuscous strigæ, between which the stigmata are placed; the latter are rather distinct, and divaricate, the anterior one is considerably elongated and the posterior somewhat lunular; both have the disc pale fuscescent, with pale cinereous margins; towards the hinder margin is an obscure pale undulated striga, having one or two indistinct dusky streaks near its origin on the costa; cilia fuscous: posterior wings pale luteous-white or ochraceous. The female has the anterior wings nearly of a plain fuscous, with the strigæ and stigmata obscure; the posterior whitish dusted throughout, with fuscous.

Not common, but at times occurring in some plenty in Hants in the autumn. “Devonshire.”—*Rev. J. Yonge* and *Dr. Leach*. “In the New Forest.”—*Messrs. Chant, Bentley, and Weaver*.

GENUS CLVI.—OPHIUSA, *Ochsenheimer*.

Palpi stout, approximating, slightly recurved, the terminal joint not much exposed, obtuse; the two basal joints covered with long compact scales anteriorly; the first one-third the length of the second, reniform; the second a little curved at its base, and slightly clavate; the terminal stout, rather slender, subulated: *maxillæ* moderate. *Antennæ* rather long, simple, very faintly pectinated in the males: *head* rather broad, slightly crested between the antennæ; *eyes* naked; *thorax* not very robust, smooth: *wings* entire, forming a triangle during repose; *anterior* broad, subtriangular, with obscure stigmata; acute at the apex; *posterior* rounded, with a slight emargination on the hinder margin; *cilia* of all elongated: *abdomen* hairy, slender, with a rather large tuft at the apex in the males; *legs* moderate; *posterior tibiæ* rather stout, with long spurs. Larva with twelve legs, naked, slender, somewhat geometric in motion; pupa folliculated.

Ophiusa differs from Catephia in having the terminal joint of the palpi scarcely visible before they are denuded, and in having the palpi themselves subparallel, and not connivent as in the latter genus; the thorax is not crested, and the abdomen is destitute of dorsal tufts on its posterior segments: the species fly chiefly by night, but occasionally in the day, revelling in the solar rays.

Sp. 1. *lusoria*. *Alis anticis glaucis fusco pulverulentis, in medio liturâ nigrâ,*

marginē postico fimbriâ fuscescente; collari nigro. (Exp. alar. 1 unc. 7—9 lin.)

Ph. No. lusoria. Linné.—Don. x. pl. 354. f. 2.—Op. lusoria. Steph. Catal. part ii. p. 111. No. 6416.

Head glaucous-ash; thorax the same, with its anterior margin, or collar, black or fuscous; anterior wings of a glaucous-ash, sprinkled throughout transversely with numerous minute dusky lineolæ, with an obscure transverse, nearly straight, striga before the middle, and a broad pale fuscous fimbria on the posterior margin; in the place of the anterior stigma is a minute black dot, and in that of the posterior, a somewhat triangular or lunate black mark with a minute dot adjoining its posterior apex; cilia pale glaucous-ash: posterior wings fuscous, with a darker margin; cilia pale ash.

In some examples the posterior wings are entirely fuscous.

Caterpillar greenish-ash, spotted with black, with two dark lines and an interrupted yellow one between; it feeds on the astragalus glycyphylus:—the imago appears towards the beginning of August.

Taken occasionally in the fields in the neighbourhood of Birch and Darenth woods, and I believe sometimes near Coombe; but the former are its usual haunts, the food of the larva occurring in plenty in some parts of Darenth-wood. “York.”—W. C. Hewitson, Esq.

†Sp. 2. ludicra. *Alis anticis fuscis puncto liturâque medio nigris, strigisque duabus obsoletis apicem versus.* (Exp. alar. 1 unc. 8 lin.)

No. ludicra. Hübner?—Op. ludicra. Steph. Catal. part ii. p. 111. No. 6417.

Anterior wings fuscous, with a dot and central patch black, and two very obsolete strigæ towards the apex; the posterior wings also fuscous.

A single example only of this rare insect, which considerably resembles the preceding, is in the collection of Mr. Swainson, who is, however, not aware of its locality, it having been introduced, with other rarities, by his father.

Sp. 3. crassiuscula. *Alis anticis griseo-fuscescentibus fasciis duabus saturatioribus, puncto medio liturâque versus apicem nigris.* (Exp. alar. 1 unc. 8 lin.)

Phy. crassiuscula. Haworth.—Op. crassiuscula. Steph. Catal. part ii. p. 111. No. 6418.

Head and thorax ashy-brown: anterior wings of a griseous-brown, palest at the base, with a broad darker obtuse fascia before the middle, and a second less distinct and divaricating behind the middle, these fascia gradually shaded off into the ground colour of the wing on their outer edge; and between them is an obscure dusky waved striga: in the place of the anterior stigma is a minute black dot, and in that of the posterior an obscure wedge-formed patch; on the costa near the apex is an oblique black streak, composed of three or four somewhat triangular spots: on the hinder margin is an indistinct series of

pale lunular spots; cilia fuscous: posterior wings fuscous with a paler marginal fimbria, in which is an undulated and somewhat angulated darker or dusky striga parallel with its inner edge, which is also dusky; cilia pale fuscous.

Of this species I have seen but two examples, one in Mr. Swainson's collection, the other in my own; the latter captured about three years since in the north of England.

GENUS CLVII.—CATEPHIA, *Ochsenheimer*.

Palpi somewhat remote at the base, approximating at the apex, rather elongate, porrected obliquely; the two terminal basal joints densely clothed with elongate scales, the apical or terminal ones with compact shorter ones, the last joint conspicuous and acute, all slender when denuded, the basal reniform, nearly half the length of the second, which is attenuated to the apex; the terminal one elongate, linear, subacute: *maxillæ* rather long. *Antennæ* long, slender, finely pectinated in the males; *head* broad, not crested: *eyes* naked: *thorax* slightly crested: *wings* entire, forming a triangle during repose; *anterior* elongate triangular, of dingy colours and markings, with obscure

†Sp. 4. *grandirena*. *Alis griseo-nigris, fasciis duabus obliquè contrariis, maculâ magnâ reniformi interjectâ, pallidis.*

Phy. *grandirena*. *Haworth*.—Op. *grandirena*. *Steph. Catal. part ii. p. 111. No. 6419.*

Anterior wings griseous-brown, with a slender pale oblique entire fascia before the middle, and another more obscure behind the middle divaricating exteriorly from the first, between these is a large reniform spot; cilia, except at the apex, fuscous: posterior wings pitchy-brown, with a pale stout lineola from the base to the middle, a large black patch in the middle, and another pale lineola near the hinder margin; cilia white, but fuscous behind the middle of the wing.

Dr. Leach, subsequently to the description of the above species, expressed his doubts of the indigenous origin of his insect, which, as it is a native of Georgia, may well be questioned:—though it may be remarked that many of the species of the semidiurnal Noctuidæ, especially the *Erastræ*, appear to have their representatives in Georgia, apparently in the state of trifling varieties, though, as such variations are constant, I consider them rather as distinct species. *Vanessa Atalanta* is amongst the number of insects said to inhabit both continents; but as in *all* the American examples which I have seen the abbreviated oblique white fascia on the anterior wings does not extend, by means of a minute somewhat triangular patch, into the fourth areolet, and there are other similar minute and constant differences, which cannot possibly arise from climate, &c., I conceive it to be a distinct species from ours, which has constantly a conical prolongation of white in the areolet in question.

stigmata; *posterior* large, with the base pale and the margin of darker hue; *cilia* moderate: *body* elongate, rather stout, with tufts of hair on the posterior segments above: *legs* rather short; *tibiæ* short, robust, the intermediate and posterior densely clothed with elongate hairy scales.

Caterpillar slightly hairy, twelve-footed; with two dorsal and two caudal spines or protuberances: pupa folliculated.

From *Ophiusa*, *Catephia* is distinguished by having the palpi approximating at the apex, and forming a kind of beak, with their terminal joint very conspicuous, and acute, before denudation; the basal joint is clothed with elongate hair-like scales, and the two others with short compact ones; the thorax is slightly crested, and the larva is distinguished by having dorsal and anal protuberances as in some of the *Catocalæ*.

† Sp. 1. *leucomelas*. *Alis anticis nigricanti fuscis, atro undatis, margine externo cinerascanti; posticis nigris basi maculisque duabus marginalibus albis.* (Exp. alar. 1 unc. 9 lin.)

Ph. No. *leucomelas*. *Linné*.—Ca. *leucomelas*. *Steph. Catal. pt. ii. p. 111. No. 6420.*

Head, thorax and anterior wings of a deep fuscous or dusky-black, the latter with darker undulated strigæ, and a paler one towards the hinder margin, which is somewhat fuscous; the stigmata are also of the latter hue; *cilia* griseous: posterior wings black, with a large white patch at the base, and two spots on the margin of the same colour; *cilia* white, with dusky clouds.

Caterpillar ash-coloured, spotted with yellowish, with the head bluish:—it feeds on the oak.

Of this fine species also a single example only is known, which is in Mr. Haworth's cabinet, but I am not aware of its locality, Mr. Haworth having obtained it from Mr. Francillon's collection.

Sp. 2. *trifasciata*. *Alis anticis cinereo-glaucis fasciis tribus fusciscentibus; posticis fuscis margine saturatiore.* (Exp. alar. 1 unc. 10 lin.)

Ca. *trifasciata, mihi*.—*Steph. Catal. pt. ii. p. 111. No. 6421.*

Head and thorax fuscous: anterior wings glaucous-ash, the base immaculate, with three nearly equidistant broad deep fuscous nearly parallel fasciæ, the first before the middle, the second, which is broadest, behind the middle, and the third on the hinder margin; between the first and second is a sub-quadrate pale spot, placed as it were between the stigmata, which are barely visible, and towards the hinder margin, between the two posterior fasciæ is a row of minute black dots; *cilia* fuscous, hoary at the anal angle: posterior wings fuscous, with the hinder margin and an oblique striga behind the middle darker; in the marginal fimbria are two somewhat-waved pale transverse strigæ; *cilia* ashy-brown.

One example of this only has occurred; it was taken by the Rev. W. Kirby, at Barham, who kindly presented me with the specimen:—of its history nothing is known.

GENUS CLVIII.—MORMO, *Ochsenheimer*.

Palpi rather short, densely clothed with scales, hair-like on the basal joint, the terminal joint conspicuous, ovate-conic, acute; the basal joint about half the length of the second, rather curved; the second elongate, slender, slightly curved at the base, sublinear, obtuse; terminal elongate, slightly attenuated to the apex, which is somewhat acute; *maxillæ* shorter than the antennæ. *Antennæ* moderate, simple, slightly pubescent beneath in the males; *head* smooth, densely squamous between the antennæ; *eyes* naked; *stemmata* distinct; *thorax* rather stout, densely pilose, crested; *abdomen* rather stout, crested on the back, and with a small tuft at the apex; *wings* deflexed during repose, and forming a triangle; *anterior* sub-triangular, broad, the hinder margin crenate; *posterior* large, ovate-triangular, crenate on the hinder margin; *legs* rather short, and stout. Larva naked, with a small head, ciliated on the sides, the body tapering towards the tail, the caudal segment tuberculated: pupa with two spines at the end; folliculated.

I am totally at a loss to conceive why Ochsenheimer should have associated this genus with *Nænia*, their differences being so obvious, and the affinity of the present so close to *Catocala* as to preclude the possibility of disuniting them without doing violence to the natural arrangement of the Noctuidæ: the crenated wings, stout crested thorax, and abdomen, disunite this genus from the preceding semidiurnal Noctuidæ, and its sombre colours from *Catocala*. Treitschke has suppressed Ochsenheimer's term *Mormo*, and substituted that of *Mania*—an objectionable name, according to the Fabrician precepts*—giving as a reason that *Mormo* is employed in Ornithology, but as the name alluded to (*Mormon* Illiger) necessarily sinks, being synonymous with *Fratercula* of Brisson, published many years previously, I have adhered to Ochsenheimer's original appellation in preference to coining a new one.

Sp. 1. *Maura*. *Alis anticis cinereo nigroque variis, fasciâ latâ medio, maculisque septem costalibus fuscis.* (Exp. alar. 2 unc. 8 lin.—3 unc.)

Ph. No. *Maura*. *Linné*.—*Don*. vii. pl. 30. f. 1.—*Mo*. *Maura*. *Steph. Catal.* part ii. p. 111. No. 6422.

* Nomina generica insectorum cum Botanicorum, Zoologorum, Lithologorum, aut Medicorum nomenclaturis communia, si ab Entomologis postea assumpta, ad ipsos remittenda.

Deep fuscous; anterior wings varied with cinereous and black, with a broad fuscous fascia in their middle, not touching the costa, in which the stigmata are included; these are cinereous, with dusky clouds and pale margins; the margins of the fascia are pale cinereous, with a dark edge; on the costa, opposite to the fascia, are five somewhat equidistant dusky spots, and near the base are two others; towards the apex of the wing are three whitish dots, the hinder margin is rather pale; cilia fuscous: posterior wings deep fuscous, with an oblique pale central striga, and another abbreviated one near the hinder margin; cilia also pale.

Varies considerably both in size and colour; some examples being very prettily varied with pale griseous, with the nervures also more or less pale, especially on the side of the anterior wings; and the hinder margin is also broadly pale griseous, or rufescent.

Caterpillar deep fuscous above, with a slender whitish dorsal line, the sides pale cinereous, head yellowish; it feeds in potherbs, especially the common lettuce (*Lactuca sativa*):—the imago appears about the end of July or the beginning of August.

Common throughout the metropolitan district; in profusion at Ripley, and in my own garden at the Hermitage, South Lambeth. "Hebden-bridge."—*Mr. Gibson*. "Castleton, St. Nicholas, Flosches, &c."—*T. C. Heysham, Esq.* "Epping."—*Mr. Doubleday*. "Netley."—*Rev. F. W. Hope*.

GENUS CLIX.—CATOCALA, *Schrank*.

Palpi porrected obliquely, densely clothed with long scales, the terminal joint excepted, which is exposed, and bears short scales; basal joint slender, rather curved; second about one-third longer than the first, slightly bent at the base, subfusiform; terminal slender linear, obtuse; *maxillæ* as long as the antennæ. *Antennæ* somewhat elongate, slender, alike in both sexes; *head* rather small: *eyes* naked: *ocelli* distinct: *thorax* rather stout, faintly crested: *abdomen* somewhat robust, cylindrical, attenuated, tufted on the back at the base, and on the tail: *wings* ample, slightly deflexed during repose, and forming a broad triangle; *anterior* subtrigonal; *posterior* large, of lively colours, usually with a deep black fimbria, and fasciated with black about the middle: *cilia* long, indented: *legs* moderate, not very stout. Larva with sixteen legs, the two anterior abdominal ones abbreviated, the sides ciliated, attenuated anteriorly and posteriorly, with a caudal protuberance: pupa enclosed in a folliculus, placed within leaves, and in general covered with a fine powder.

The species of *Catocala* are amongst the largest of European Lepidoptera, and are no less distinguished by their size than by the liveliness and brilliancy of their colouring; they are very active

insects, repose with their wings slightly deflexed and a little expanded, forming a broad triangle, fly during the day if approached, and with vivacity towards twilight; their wings are deeply crenate, the posterior being mostly of a brilliant crimson, with black fasciæ and margins; and their abdomen rather long and attenuated from the base to the apex.

Sp. 1. Fraxini. *Alis anticis albido cinereoque nebulosis, posticis nigris, fasciâ latâ pone medium cærulescente.* (Exp. alar. 3 unc. 10 lin.—4 unc.)

Ph. No. Fraxini. *Linné.—Don. v. pl. 171. f. 172.—Ca. Fraxini. Steph. Catal. part ii. p. 112. No. 6423.*

Head and thorax whitish-gray, mixed with yellowish and hoary: anterior wings whitish, clouded with cinereous, with several transverse dusky strigæ, the first at the base, slightly angulated; the second flexuous, considerably before the middle geminated, the space between pale, the next considerably angulated and somewhat oblique, with a whitish margin on its outer edge, the fourth also angulated or indented, and situated near the hinder margin, which has an interrupted blackish line; the posterior margin itself paler, with its extreme edge fuscous; cilia long and white; between the second and third strigæ there is a dark fuscous transverse fasciæform cloud, in which is a rhomboid white patch: posterior wings black, with a broad pale-blue fascia a little behind the middle, the hinder margin rather pale; cilia long and white; abdomen dusky, with darker fasciæ above, beneath snowy-white.

Caterpillar cinereous, sprinkled with minute black dots: it feeds on various plants, as the ash and poplar, beech, oak, birch, elm, maple, &c., but prefers the two first:—the imago appears in the autumn.

This magnificent insect is at once the largest species of the family, and one of the most interesting from its rarity; very few specimens having occurred, notwithstanding its great bulk and the diligence with which it has been sought after: a fine, though injured specimen was taken by Mr. J. Standish, sen., in September, 1827, near Birch-wood, and one or two other examples have occurred near London: in September, 1821, in walking through the churchyard at Shalford near Guildford, I saw a specimen resting on the church-door; but, from the rapidity with which one of the persons in my company moved towards the spot, the insect took alarm and settled on the roof, from whence I was unsuccessful in my endeavours to dislodge it. Several specimens have, however, occurred in the north of England, in Yorkshire especially. “One specimen at Scarborough, in Sept. 1828.” “Near Beverley, in Sept. 1827.”—*A. H. Haworth, Esq.*, who also possesses specimens from Holderness and Kent. “I have a specimen taken about twenty years ago in a

field by the servant of Mr. Stickney of Ryhill, near Holderness.”—*P. W. Watson, Esq.* “Near Lowestoff, in Suffolk, in Sept. 1828.”—*Mr. G. Waterhouse.*

Sp. 3. Nupta. *Alis anticis cinerascentibus, strigis flexuosis, posticis dilute rubris, fasciâ mediâ flexuosâ abbreviatâ margineque nigris, abdomine supra cano.* (Exp. alar. 3 unc.—3 unc. 6 lin.)

Ph. No. Nupta. *Linné.*—Ca. nupta. *Steph. Catal. part ii. p. 112. No. 6425. Harris, A. pl. 18. f. g—m.*

Head and thorax dusky-gray, the latter with some transverse darker lines anteriorly, and two whitish or hoary spots; anterior wings cinerascens, thickly sprinkled with minute black dots, with an abbreviated dusky striga at the base, an undulated duplex one before the middle, a flexuous and angulose one behind the middle, and a pale waved one towards the hinder margin, with an irregular fasciæform one in the middle, in which is a distinct, somewhat ear-shaped mark; on the hinder margin is a series of somewhat lunular black spots, margined exteriorly with cinereous; cilia pale cinereous, with a dusky central streak: posterior wings pale red, with a flexuous and slightly angulated irregular dull black fascia, not reaching to the inner

Sp. 2. Elocata. *Alis anticis fusco cinereoque nebulosis; posticis rubris, fasciâ mediâ rotundatâ margineque nigris.* (Exp. alar. 3 unc. 6 lin.)

No. Elocata. *Esper.*—Ca. Elocata. *Curtis, v. pl. 217. (!)—Steph. Catal. part ii. p. 111. No. 6424. note.*

Ashy-gray, head and thorax minutely dotted with black; anterior wings the same, with a slender waved striga towards the base, a denticulated waved line beyond the middle, followed by an angulated waved fuscous striga near the posterior margin, and upon the margin itself a row of dots, black anteriorly and ochraceous exteriorly; towards the centre of the wing is an undefined dark fascia, in which are two obscure spots; posterior wings pale scarlet, with a regularly curved dull black fascia in the middle, tapering towards the inner margin, a broad fimbria of the same colour, and on the margin a large scarlet spot and some smaller ones.

This fine insect presents a conspicuous instance of the baneful practice of mixing foreign and indigenous productions together, particularly when undistinguished by any memorandum or label, as, in consequence of an unticketed specimen having been detected in the collection of the late Mr. Blunt, this species has not only been selected and figured as a British example of the genus *Catocala*, but the error has been subsequently copied into Loudon's Magazine, whereas the specimen in question which has thus improperly been introduced into our Fauna was obtained direct from *Oporto* by its late regretted possessor, who unfortunately was too prone to admit dubious insects into his collection, and permitted the present, with *Deilephila Galii*, and some three or four other foreign species, to disfigure his cabinet.

margin of the wing, somewhat resembling the human shank and foot; on the outer margin is a broad fimbria of the same colour, cilia white.

In some examples there is a rounded whitish patch on the central fascia of the anterior wings towards the inner margin, and sometimes a quadrate one, anterior to the ear-shaped mark; the strigæ are frequently very boldly marked; and in one of my specimens the central fascia on the posterior wing is irregularly carried on to the inner margin, while the base of the wing itself is dusky.

Caterpillar varied with dark and pale fuscous, with some yellowish spots and interrupted longitudinal streaks, the cilia on the sides whitish: it feeds on *Salix Vitellinæ*:—the imago appears in the beginning of August.

Not an uncommon species, occurring plentifully in places where willows abound throughout the metropolitan district.

“Wandsworth Common, August, 1829.”—*S. Saunders, Esq.*
 “Norfolk and Suffolk.”—*W. C. Hewitson, Esq.* “Davidson’s Bank.”—*T. C. Heysham, Esq.* “Epping.”—*Mr. Doubleday.*
 “Netley.”—*Rev. F. W. Hope.*

Sp. 5. sponsa. *Alis anticis ex flavo cinerascens fusco undatis; posticis coccineis fasciâ mediâ flexuosâ margineque nigris.* (Exp. alar. 2 unc. 6 lin.—3 unc.)

Ph. No. sponsa. *Linné.*—*Don. ix. 77. pl. 324.*—*Ca. sponsa. Steph. Catal. part ii. p. 112. No. 6427.*

Head and thorax deep fuscous, minutely speckled with black, hairy and yellowish: anterior wings of a deep yellowish-ash, clouded with fuscous, with dark transverse rather indistinct undulated strigæ, two of which in the middle of the wing are considerably angulated, and between them is a yellowish white patch in which are pretty correctly represented the letters J G, the latter very conspicuous, and between these and the inner margin is a pale rounded and some-

† Sp. 4. Pacta. *Alis anticis grisescentibus, strigis dentatis nigris, posticis rubris fasciâ mediâ abbreviatâ margineque nigris, abdomine supra rubro.* (Exp. alar. 3 unc. 2 lin.)

Ph. No. Pacta. *Linné.*—*Berkenhout (!)*—*Ca. Pacta. Steph. Catal. part ii. p. 112. No. 6426. note.*

Head, thorax, and anterior wings bluish-ash, or griseous, slightly undulated, with a broadish fuscous striga towards the hinder margin, and a flavescent patch on the disc: posterior reddish or dull crimson, with a regularly arcuated black fascia in the middle, not reaching to the inner margin, and a fimbria of the same hue; cilia flavescent; abdomen rosy above.

The caterpillar feeds upon the oak:—the insect is a native of Sweden, Norway, and other parts of the north of Europe.

Ca. Pacta has doubtless been introduced into our Fauna through Wilkes’s mistake in referring the common *Nupta* to the *Pacta* of *Linné*; a name subsequently copied by *Berkenhout*, and afterwards by *Turton* and others.

what rhombic spot, sometimes flavescent and spotless, at others of a cinereous hue, with minute darker spots, and always edged with black or fuscous; towards the hinder margin is an undulated angular pale flavescent or whitish striga, and on the hinder margin a series of somewhat lunular black spots, margined with flavescent-ash exteriorly; cilia deeply crenated, fuscous: posterior wings bright crimson, with a narrow flexuous, biangulated, black fascia a little behind the middle, and a broader fimbria of the same colour, attenuated towards the apex of the inner margin; cilia fuscous.

This beautiful insect, like its congeners, varies considerably in the tint and boldness of its colours and markings, but all the variations may be readily known by the darker hue of the anterior wings, and by the distinctly angulated black fascia behind the middle of the posterior wings, as well as the dark cilia upon the latter.

Caterpillar with the head bluish, the body variegated with fuscous and light ash, some of the anterior (as well as the caudal) segments tuberculated; it feeds on the oak; the pupa is bluish:—the imago appears towards the end of June.

Rare near London; a few specimens have occasionally been taken in the larva state upon the oaks in Richmond Park; near Sydenham woods, Shooters'-hill, Birch-wood and Darenth, and near Leatherhead and Windsor; but in the New Forest many examples have been captured in the vicinity of Lyndhurst.

Sp. 6. *promissa*. *Alis anticis fusco cinereoque variis, strigis dentatis atris; posticis coccineis fasciâ mediâ angustâ subabbreviatâ fimbriâque nigris.* (Exp. alar. 2 unc. 3—10 lin.)

No. *promissa*. *Wien. Verz.*—Ca. *promissa*. *Steph. Catal. part ii. p. 112. No. 6428. Harris, A. pl. 19. f. g—b.*

Head and thorax cinereous, varied with fuscous, the latter minutely sprinkled with black and flavescent, forming strigæ on the anterior margin: anterior wings varied with fuscous and cinereous, and dusted with yellowish and black, and boldly marked with deep black dentated strigæ, the second from the base being broad and fasciæform, slightly waved on its exterior edge and gradually shaded off on its interior: the following striga is very flexuous towards the costa, and terminates on the inner margin in a lunate whitish spot; between these strigæ, towards the costa, is a paler spot having the letters J G indistinctly marked, and between the last striga and the posterior margin is a very much angulated, slightly waved, pale ashy striga, and on the margin a series of black spots edged outwardly with cinereous; cilia fuscous-ash: posterior wings rich crimson, with a narrow, scarcely angulated, black fascia behind the middle, very much attenuated towards the inner margin and rarely extending to the margin itself, and a broad black fimbria; cilia cinereous, clouded and spotted with fuscous.

This also varies very much, scarcely two specimens occurring alike, but all the varieties may be readily known from those of the preceding insect by the

straight and deep angulations of the striga on the anterior wings, and the scarcely angulated basal fasciæ on the posterior, with pale clouded cilia.

Caterpillar bluish-ash, prettily spotted with black;—it feeds on the oak:—the imago appears towards the end of June.

Also a local species; but in certain years abounding in the larva state in the oaks near Brockenhurst in the New Forest: in 1821 I received several dozens of larva from thence in spirits, and about forty of the moths, but amongst them there were neither the larva nor imago of the preceding species, which many persons assert is merely a variety, as a solitary specimen or two of *Ca. promissa* has been found in company with the foregoing in Richmond Park. Also taken plentifully in 1828, in the same neighbourhood, by Mr. Weaver.

Sp. 7. *conjuncta*. *Alis anticis cinereo-fuscis, nigro nebulosis; posticis coccineis, fasciâ mediâ rectâ sublineari, tenuissimâ, fimbriâque nigris.* (Exp. alar. 2 unc. 4 lin.)

No. *conjuncta*. *Esper.*—*Ca. conjuncta*. *Steph. Catal. part ii. p. 113. No. 6429.*

Head and thorax of an ashy-brown mixed with black and white; anterior wings the same, clouded with black, with a grayish-white central fascia and an undulated, somewhat indented, posterior striga; the anterior striga is black at its origin on the costa and somewhat fasciæform, terminating towards the inner margin in a slightly waved duplex black streak; in the central whitish fascia is a yellowish patch, edged with dusky, and a faint auricular mark between it and the costa; the posterior margin of the fascia is very flexuous and edged with a deep black and fuscous striga; the hinder undulated posterior whitish striga is faintly edged with fuscous, and the hinder margin of the wing is terminated by a series of lunular black spots with whitish margins; cilia fuscous-ash: posterior wings crimson, with a nearly straight, sublinear, black, slender fascia, tapering towards the inner edge, in the middle, and a broad black fimbria, having a minute whitish blotch on its margin near the apex of the wing; cilia white at the apex, cinereous, spotted with fuscous towards the inner margin.

A single specimen has been found near Dulwich; a second was in the collection of Mr. Jones; and I possess one from the Marshamian collection, but of its locality I am not aware.

GENUS CLX.—BREPHA, *Hübner*.

Palpi very short, concealed in the hairs of the head which are divergent—the two first joints being of nearly equal length, the basal most robust; apical slender, ovate: *maxillæ* as long as the antennæ. *Antennæ* moderate, simple

in the females; sometimes bipectinated to the apex in the males, at others robust and pubescent, distinctly articulated: *head* pilose: *eyes* small, naked: *thorax* rather slender, pilose: *wings* nearly horizontal during repose, *anterior* rather narrow, entire; posterior yellow or luteous with black fasciæ: *abdomen* slender. Larva naked, slender, half-looper, with sixteen legs, the first pair of abdominal ones shortest: pupa elongate, slender, folliculated.

Like the species of *Catocala* the *Brephæ* are distinguished by the beauty of their under surface and the liveliness of the colouring of their posterior wings, which are generally orange or flavescent, with black or dusky fasciæ and margins:—the concealed palpi and densely pilose head (resembling those parts in the genus *Pœcilocampa*) serve admirably to discriminate them from the others of the family; the species at first blush resemble each other so closely that Mr. Haworth apologizes in the following terms for the introduction of a second species into his *Lepidoptera Britannica*:—“Fearful of undoing, without sufficient reason, what the great Lepidopterist Hübner has established, the present article (*Br. notha*) is here at present retained as a species; without such authority very few would have considered it as more than a slight variety.” But a momentary glance at the antennæ of the two insects is sufficient to convince any person of their distinctions, their structure, as it has been observed, being so different that the two species “will probably, by future writers, be formed into distinct genera.”

A. Antennæ not submoniliform (pectinated in the males).

Sp. 1. *Parthenias*. *Alis anticis fuscis, cinereo adspersis; posticis dilute aurantiacis, maculâ baseos, fasciâ mediâ angulatâ margineque nigris.* (Exp. alar. 1 unc. 1—4 lin.)

Ph. No. *Parthenias*. *Linné.—Don. vii. pl. 246. f. 1. Br. Parthenias. Steph. Catal. part ii. p. 113. No. 6430.*

Fuscous; anterior wings fuscous, sprinkled with cinereous; with several very obscure cinerascens or whitish strigæ, of which two towards the posterior margin are most distinct, and arise from two somewhat lunular whitish spots on the costa; anterior to the first is a small bluish-ash stigmatiform spot with a dusky margin, between which and the base of the wing, on the costa, is a pale ashy spot; posterior wings pale orange, with the base and inner margin broadly black, with an angulated, and sometimes interrupted, narrow black fascia in the middle reaching to the costa, and an irregular fimbria of the same colour; cilia of all the wings fuscous, slightly clouded with cinereous: female paler.

Extremely variable: in some examples (especially of the female), the anterior

wings are alternately fasciated transversely with fuscous and cinereous ; and the width of the marginal fimbria on the posterior wings varies considerably.

Caterpillar feeds upon poplars and willows: it is yellowish-green, with a bluish-black lateral line, and some black spots:—the imago appears towards the end of March.

Near Hertford, Highgate, Colney-hatch, and Coombe-wood, I have occasionally seen and captured specimens of this insect, which is in certain seasons not uncommon: it also occurs at Birch and Darenth woods. “Ongar Park woods.”—*Mr. Doubleday*.

†Sp. 2. puella. *Alis anticis fusco-cinereis, fasciis obscurioribus obsoletis; posticis luteis, fasciâ mediâ, maculâ baseos, margineque nigris.* (Exp. alar. 1 unc. 3 lin.)

No. puella. *Esper*.—Br. puella. *Steph. Catal. part ii. p. 113. No. 6431.*

Fuscous: anterior wings fuscous-ash, with obsolete darker fasciæ, nearly as in the foregoing species: posterior wings luteous, with a broad, somewhat rounded central fascia at the base, and the hinder margin black; cilia cinereous: female paler, with the fasciæ more distinct.

The luteous posterior wings at once distinguish this insect from its congeners.

Caterpillar violet, with white dorsal and lateral lines; and two spots on the middle segment under the dorsal line: it feeds on the aspen.

A single specimen of this insect is in the collection at the British Museum: of its origin I am not aware, but I believe it was obtained by Dr. Leach from Dr. Lettsom's collection.

B. Antennæ submoniliform (not pectinated in the males).

Sp. 3. notha. *Alis anticis ferrugineo-fuscis, cinereo adpersis, maculisque albis; posticis aurantiacis, maculâ baseos, fasciâ mediâ angulatâ margineque interrupto nigris.* (Exp. alar. 1 unc. 2—4 lin.)

Br. notha. *Ochsenheimer*.—*Curtis*, iii. pl. 121. *Steph. Catal. part ii. p. 113. No. 6432.*

Deep fuscous: anterior wings of a rusty-brown, sprinkled with minute ashy dots, with the base dusky; a black waved transverse striga before the middle, and two other obscure dusky ones towards the hinder margin; on the disc towards the costa is a black or dusky spot with a darker edge; anterior to which is an elongate white spot, generally continued by a more or less distinct striga to the inner margin (in the females fasciæform), and near the apex is a geminated white costal spot, the anterior frequently produced along the outer edge of its accompanying dark striga; cilia dusky with pale spots: posterior wings bright orange, with a broad patch at the base interiorly, united to an angulated irregular fascia, and an interrupted fimbria black, the inner margin

frequently with an elongate orange streak; cilia flavescent, clouded with black. Female with the markings more distinct.

An extremely variable species, but the male sufficiently known from its congeners by the want of pectinations to its antennæ, and the female by the brilliancy of the orange on the posterior wings, the broader and more interrupted black fimbria thereon, and the distinctly jointed antennæ.

Caterpillar green, with the head brighter, with a yellowish dorsal, and broader griseous lateral lines: it feeds on the birch, oak, and hazel:—the imago appears at the end of March.

Found near Coombe and Birch woods, especially in the latter neighbourhood, but not very abundantly. I have reared it from a larva taken at Darenth-wood. It also occurs in other parts of the metropolitan district. "Rather plentiful, flying during the day in fir plantations, on 22d March, near York."—*W. C. Hewitson, Esq.* "Ongar-park-woods, common."—*Mr. Doubleday.*

GENUS CLXI.—EUCLIDIA, *Ochsenheimer.*

Palpi rather short, porrected obliquely, the basal joints clothed with elongate hairs, the apical exposed and somewhat linear; basal joint about of equal length with the terminal, rather stouter than the second, which is more than as long again as the basal, a little curved, somewhat tumid anteriorly and attenuated to the apex, terminal elongate-linear, slender: *maxillæ* rather long. *Antennæ* short, simple in both sexes, slightly pubescent in the males: *head* small: *eyes* naked: *thorax* subglobose, not crested: *abdomen* slender, rather elongated, ovate and more robust in the females, the segments usually with pale edges: *wings* deflexed, *anterior* entire, generally marked with transverse bars and figures, resembling mathematical symbols: *posterior* yellowish, with blackish spots or bars: *legs* slender. Larva slender, naked, with sixteen legs, the first pair of prolegs rather short; pupa folliculated, not subterraneous.

The genus *Euclidia* may be known by the shortness and width of the anterior wings, which are usually marked with distinct irregular fasciæ or lines resembling geometrical figures; the posterior wings are also distinctly marked, and are usually of a yellowish hue, more or less fasciated with black or dusky: the abdomen is rather elongate and distinctly annulated:—the species fly by day, especially between the hours of two and four in the afternoon.

Sp. 1. *glyphica*. *Alis anticis glaucescentibus, fasciis duabus, maculâ costali marginique postico fuscis; posticis luteis, basi, strigis, venis margineque postice nigrescentibus.* (Exp. alar. 1 unc. 1—2 lin.)

Ph. No. *glyphica*. *Linn.*.—*Eu. glyphica*. *Steph. Catal. part ii. p. 113. No. 6433.*

Head and thorax black, clothed with reddish-brown hairs; anterior wings glaucescent, with an oblique fuscous fascia near the base, and another a little behind the middle, in which is a lunular pale stigma; on the costa, between the second fascia and the tip of the wing, is a subquadrate or triangular fuscous spot, and the hinder itself is also fuscous; cilia brown, immaculate: posterior wings luteous, with the base and inner edge broadly black, or dusky, the nervures (except near the costa), two interrupted, irregular strigæ, and the hinder margin, also dusky; cilia brown, sometimes with slightly paler clouds.

The fasciæ on the anterior wings vary in width, and intensity of colouring: in some instances they are situated close together, in others they are remote; and are occasionally nearly obliterated.

Caterpillar rusty-griseous, with a fuscous dorsal and lateral streak, and a row of blackish dots above and beneath the latter: it feeds on the Verbasci and *Trifolium pratense*.

Not an uncommon species in fields and the borders of woods, where clover is cultivated, throughout the metropolitan district. "Netley, Matlock, and North Wales."—*Rev. F. W. Hope*. "Halifax."—*W. C. Hewitson, Esq.* "Pretty common; Rock-cliff, Durdan, Orton, &c."—*T. C. Heysham, Esq.* "Monks'-wood, Hunts."—*C. C. Babington, Esq.* "Epping."—*Mr. H. Doubleday*.

Sp. 3. Mi. *Alis anticis nigro alboque variis, posticis flavescentibus, fuscis venisque nigris.* (Exp. alar. 1 unc. 1—2 lin.)

Ph. No. Mi. *Linné*.—Eu. Mi. *Steph. Catal. part ii. p. 114. No. 6435. Harris, A. pl. 41. f. 5.*

Black, with ochraceous and whitish dots: anterior wings black, varied with flexuous white, or flavescent, strigæ, the stigmata distinct, black, the anterior small, round, the posterior larger, somewhat ovate: posterior wings flavescent,

† Sp. 2. *triquetra. Alis anticis cinereis, maculis fuscis triquetris; posticis flavis, fusco-fasciatis.*

No. *triquetra. Wien. Verz.*—*Samouelle (!)*—Eu. *triquetra. Steph. Catal. part ii. p. 114. No. 6434. note.*

Cinereous: the anterior wings varied with cinereous and fuscous, with a large triangular black spot in the middle, and behind this three other fuscous ones that are nearly united: the posterior wings yellowish, with a fascia and the posterior margin fuscous.

This species is erroneously introduced in the Entomologist's Compendium, by mistake, for the preceding species: it does not inhabit Britain, so far as the inspection of the numerous collections which have come beneath my notice indicate, but is a native of Hungary and Italy.

with a central spot, two transverse fasciæ, the hinder margin, and the nervures black; cilia white, spotted with black: abdomen black, with white rings.

Extremely variable: the black or the lighter markings predominating in different specimens; so as sometimes to reverse, as it were, the ground colour, especially of the posterior wings; which may be said to be occasionally black, with a central ovate flavescent spot, and two undulated transverse strigæ, interrupted by dusky nervures, towards the hinder margin of a similar colour, or white.

Caterpillar reddish-white, with a dusky dorsal and whitish lateral line; head brown, with light stripes and dusky spots: it feeds on the *Medicago falcata*:—the imago appears towards the end of June in fields.

A very common species; occurring plentifully in various parts throughout the metropolitan district. “Near York, and in Suffolk.”—*W. C. Hewitson, Esq.* “Rather common; Davidson’s-bank, Black-hall, &c.”—*T. C. Heysham, Esq.* “Monks’-wood, Hunts.”—*C. C. Babington, Esq.* “Epping.”—*Mr. Doubleday.* “Netley and Wales.”—*Rev. F. W. Hope.* “Raehills.”—*Rev. W. Little.*

LEPIDOPTERA SEMIDIURNA.

By which term I propose to distinguish such Lepidopterous insects as possess, more or less determinately, the following characters:

Palpi two, occasionally four; short, rounded or cylindric-conic, or sometimes elongate and recurved, mostly triarticulate, the terminal joint generally least: *maxillæ* short and membranous, or wanting: *antennæ* setaceous, pectinated or simple: *head* usually small: *eyes* prominent: *thorax* in general slender, velvety or squamous, never crested or tufted: *body* for the most part slender and elongate; the males with a slight anal tuft; stouter with the apex somewhat acute in the females: *wings* undivided, large in proportion to the bulk of the body, during repose placed horizontally, or but little, rarely much, deflexed, sometimes erect, the posterior with a single fold on the inner edge; form considerably diversified: *legs* slender, sometimes much elongated; four posterior generally with spurs at the apex.

Larva varies with from ten to fourteen legs, the anal ones sometimes wanting: body slender, glabrous, much elongated; exposed, with a geometric motion, excepting in those which have no anal legs; or concealed in a slight folliculus amongst curled leaves, and with a direct or retrograde wriggling gait.

Of this beautiful section, which, not only in habit but in manners, is in several respects closely allied to the *Diurna*, several hundred species are found in Great Britain, but, like the preceding insects,

their characters are enveloped in considerable obscurity, although it is palpable that there is great diversity of structure amongst them:—it is consequently an object of difficulty to subdivide them satisfactorily, in proof of which it may be remarked, that every modern author who has treated upon the group differs in the disposition of the species in the respective genera*.

From the preceding insects, the present group may be known by the bulk and thinness of their wings, compared to the size of the body, which is generally very slender: they fly early in the afternoon and in the evening, or in the twilight, though some few may be found throughout the night; but the typical species fly in the full blaze of sunshine, and when they alight elevate their wings after the manner of the Papilionidæ.

There are evidently three families, readily distinguished by the larvæ, in this group, but in the imago state their differences are not very easily characterized: they may probably be known by the subjoined characters:

| | | | | |
|---------------|---------------------------|---|--|--------------------|
| Palpi duo, | { brevis. Alæ an- tica | { | haud falcata. (Larvæ geometricæ:) | 1. GEOMETRIDÆ. |
| | | | plerumque falcata. (Larvæ haud geo- metricæ:) | 2. PLATYPTERICIDÆ. |
| | | | elongati, magni; aut quatuor. (Larvæ folliculatæ:) | 3. PYRALIDÆ. |

* It is no easy task to arrange *at once* (as in my Catalogue) *all* the known insect inhabitants of a country, and to dispose them into modern genera, without occasionally placing *some few* in erroneous locations, by including them in genera to which they may eventually prove alien, as may be the case with some of the insects hereafter placed, in accordance with my Catalogue, under the present group, from the enormous extent of the subject rendering it manifestly impossible to examine every insect with the accuracy which the mere selector of a few conspicuous species, annually, *ought* to exhibit: and in this work a location *must be found* for all that have been discovered, not having the power of *capriciously omitting* the discordant ones; and it may be added, that it already contains full descriptions, with localities, &c. of about 3000 species; and that, from recent publications, it appears that *not 10* of those omitted to be noticed in these pages *were discovered previously* to the appearance of the respective genera to which they appertain.

FAMILY I.—GEOMETRIDÆ *mili*.

Antennæ setaceous, pectinated, or ciliated in the males, sometimes simply pubescent, in the females mostly simple, rarely serrated. *Palpi* rather short, triarticulate, slightly or not at all porrected beyond the head, pilose or velvety: *maxillæ* generally membraneous, sometimes long, distinct, occasionally short, or altogether obliterated: *thorax* not crested nor tufted, generally velvety: *wings* slightly deflexed or horizontally extended, not divided nor convoluted, generally of a slighter texture and larger in proportion than those of the two preceding sections, and destitute of stigmata: *abdomen*, except in some females, long and slender, with a slight anal tuft: *legs* rather short and slender; anterior *tibiæ* generally with a spine within; intermediate mostly with a pair of spurs at the apex, and posterior usually with a pair in the middle, and another pair at the apex.

Larvæ geometric (or loopers), naked or furnished with a few short hairs, sometimes tuberculated: legs variable from ten to fourteen, the six anterior and two anal ones always present; the former and the four posterior alone used in walking. *Pupa* various; sometimes angulated, most frequently folliculated, the folliculus attached to leaves, sometimes superficial, or more or less subterraneous.

The larvæ of this family are pre-eminently distinguished for their singular motion: they are for the most part destitute of abdominal legs, and during repose adhere firmly, generally in an oblique position, by their anal ones, which are always four in number, to the twigs of the trees upon which they subsist, and in many instances their resemblance thereto is so complete as to deceive the beholder: when preparing to move they extend their bodies in all directions, as if measuring their distance (thence called *geometers*); and when they actually progress they lay hold of the substance upon which they are moving with their six anterior legs, and bring the posterior forward, thereby forming their body into an arch or loop; but they rarely proceed onwards without, as it were, measuring their distance at every step.

These beautiful insects are manifestly susceptible of distribution into several genera. Treitschke has divided the European species into 19 very artificial ones, based upon the divisions of the Wiener Verzeichnis: in my Systematic Catalogue, published two years since (or rather in my Nomenclature, which appeared previously), I divided the indigenous species into 61, from the examination of the specimens in my own collection; and a little subsequently,

Duponchel, in his description of the French Lepidoptera, proposed 48, to embrace the French species: this last author, in common with Latreille, forms his primary groups from a consideration of the number of legs in the larvæ; but from the reasons assigned by me in vol. ii. p. 4, I have endeavoured to render the indigenous genera cognizable by brief characters, drawn up from the external difference (as far as possible) of the perfect insect, and as a primary step have in some measure followed the method of Linné, by dividing them agreeably to their contour, though something more than “mere outline” is requisite to be attended to in their investigation; and it may be added, that their distribution into two groups (improperly termed *families*), in which the males of one have the antennæ pectinated, and of the other ciliated or nearly simple, is evidently unnatural, inasmuch as the genera *Rumia* and *Ourapteryx*, professedly of difficult location, have the male antennæ simple, though closely allied to insects having strongly pectinated antennæ. Again, Treitschke and Duponchel appear to take no account of the occasionally pectinated antennæ of some females, e. g. in *Pericallia*, but associate that genus with others in which the antennæ of the females are simple, and in some male insects (as in *Odontopera*) scarcely pectinated, the contour of the wings and the magnitude of the body being totally dissimilar: the variations in the structure of the legs appear also to have been unattended to, judging from the locations of such insects as *Psychophora marginata* and *Thymiaria*, the genus *Pachykenemia*, *Lozogramma*, &c.

GENUS CLXII.—PSODOS, *Treitschke*.

Palpi porrect, projecting beyond the forehead, very hairy: *maxillæ* long; *wings* generally of black or dark hues; *body* the same, slightly hairy, and slender. *Antennæ* thickened, and simple, in both sexes. Metamorphoses unknown.

The insects of this genus are of dull and extremely sombre hues, generally black or smoky, and but rarely enlivened with gay tints; notwithstanding which they are fond of gambolling in the sunshine, whereby they approach in manner to final insects of the group which has lately been concluded.

Never having had an opportunity of examining a species of this

genus, I have been compelled to extract the above very meagre characters from Treitschke and Duponchel—sufficient, however, to enable any one to detect the indigenous species. In my Systematic Catalogue I adopted the name *Psychophora* of Kirby, from having seen at Barham, ten years since, an injured specimen of *Bombyx Sabini*, which appeared to be the same with *Geometra trepidaria* of *Haworth*; but as *Psychophora Sabini* is described as having the male antennæ bipectinated, that insect is clearly not congenerous; I have therefore reverted to Treitschke's name *Psodos*, which has subsequently been characterized.

† Sp. 1. *trepidaria*. *Alis fuliginosis, fasciâ mediâ saturatiore, utraq̃ue dentatâ pallidoque submarginatâ*. (Exp. alar. 10 lin.)

Ge. *trepidaria*. *Hübner*?—Ps. *trepidaria*. *Steph. Catal. pt. ii. p. 114. No. 6436*.

Black, with the anal tuft and tarsi smoky: head, thorax, breast, and porrect conspicuous palpi, with long black hairs: antennæ above black, beneath smoky, filiform: anterior wings smoky-black at the base, with a short obsolete deep-black line; then nearly in the middle an oblique smoky-black fascia, much dilated and darker towards the costa, in which is a deep-black dot, in place of the anterior stigma of the Noctuidæ: behind this fascia, in certain lights, is a broad, very obsolete, dusky striga, terminating on the costa in a deep-black spot: the costa itself at the base is a little incrassated, and gibbous: posterior wings almost entirely of a dusky black, and the hinder margin of all with a very slender interrupted black striga; cilia long and smoky.

The above description from *Lepidoptera Britannica* is from a specimen taken by Dr. Hooker on Schehalion, one of the Breadalbane mountains, where I believe the insect has been subsequently taken in June by Mr. Dale.

† Sp. 2. *alpinata*. *Alis atris, fasciâ latâ posticâ aureo-fulvâ communis, margine vix attingente*. (Exp. alar. 1 unc.)

Ge. *alpinata*. *Wien. Verz.*—Ps. *alpinata*. *Steph. Catal. part ii. p. 114. No. 6437*.

Black: all the wings with a broad golden-fulvous abbreviated fascia near the hinder margin: cilia gray-black.

Said to have been taken by Mr. Plasted near Holwood, by Bromley in Kent; Holywell, as Mr. Haworth informs me, being a typographical error in *Lepidoptera Britannica*:—on the continent the insect inhabits mountainous districts.

GENUS CLXIII.—SPERANZA, *Curtis*.

Palpi somewhat horizontal, thickly squamous, the terminal joint distinct, tri-articulate, the basal joint slightly curved, and of equal length with the second, the apical one minute. *Antennæ* slightly pectinated in the males, each joint, excepting the three or four terminal ones, producing a subclavate ciliated branch on each side, shortest towards the base: *head* small: *thorax* rounded: *wings* flavescent or luteous, with their hinder margins entire; *anterior*, in the male, with a tubercular elevation on the upper surface near the base, which is hollow and denuded beneath: *femora* elongate; *tibiæ* short, anterior with a spine on the inner side; posterior with two pair of spurs.

The absence of pectinations towards the apex of the male antennæ distinguishes that sex from the following genus; and the females may be known by their flavescent or luteous hues, more or less bordered or irrorated with black or dusky. *S. limbaria* is double-brooded, being found in June, and again in September; but whether that is the case with the other species I am not aware.

Sp. 1. *brunneata*. *Alis ochraceo-ferrugineis, pulverulentis, strigis fuscescentibus*. (Exp. alar. 10—11 lin.)

Geo. *brunneata*. *Thunberg, Im. Suec.*—Sp. *sylvaria*. *Curtis, v. pl. 225.*—*Steph. Catal. part ii. p. 114. No. 6439.*

Rusty-ochraceous, with obscure dark speckles, with four very indistinct dark sinuated transverse strigæ, and a minute spot of similar hue in the centre; posterior with two bent strigæ and a dusky central spot: cilia of all pale fuscous: beneath orange, with deeper irrorations, and two or three darker strigæ. Female darker, with the strigæ broader and more distinct.

I have no doubt that this species is synonymous with the *Geo. bruneata* of Thunberg, consequently I have adopted his name as being first published: the *Ge. quinquaria* of Hübner, and his *Ge. Pinetani*, which is the female of the last, are closely allied, if they be not intended for the same.

All the examples that I have hitherto seen of this interesting species were captured in Scotland “on the 24th July, 1827, on heath amongst the pine-trees in Black-wood, near the shores of Loch Rannoch.”—*Curtis, l. c.*

Sp. 2. *limbaria*. *Alis suprâ luteis, costâ fusco minutum atomosâ, antennis marginæ postico nigris*. (Exp. alar. 1 unc. 1—2 lin.)

Ph. *limbaria*. *Fabricius*.—Sp. *limbaria*. *Steph. Catal. part ii. p. 114. No. 6438.* *Harris Exp. pl. v. f. 4.*

Black, dusted with flavescent: wings above luteous; anterior with the costa

minutely sprinkled with fuscous, the hinder margin broadly black, posterior thickly irrorated with fuscous (especially in the female), with the hinder margin rather faintly bordered with black, sometimes with a chain of luteous spots within: beneath the anterior wings are pale luteous, very thickly irrorated with fuscous, especially towards the hinder margin and the costa; the posterior fuscous, with white radii: cilia of all black above, beneath black, interrupted with luteous.

Caterpillar smooth, very slender, green-brown, with a longitudinal yellow stripe on each side: it feeds on the broom (*Spartium Scoparium*), and reposes at full length along the branches, unlike the generality of the *Geometridæ*.

This pretty little species is not uncommon among the high broom in the vicinity of Birch-wood in Kent, the only locality in which I have hitherto captured it; it does, however, occur in other places: during repose it carries its wings erect, and has considerable resemblance to a butterfly, which it also imitates by flying in the day-time.

GENUS CLXIV.—*BUPALUS*, *Leach*.

Palpi extremely short, concealed within the hairs of the front, triarticulate, the two basal joints robust, clothed with long hairs, the first reniform, much longer than the two others united, the second short, subquadrate, terminal minute, subovate, acuminate: *maxillæ* very short. *Antennæ* bipectinated in the males to the apex, each joint producing an acute twig on each side, ciliated within, and gradually shortening to the apex; simple in the females: *head* small: *thorax* squamous: *wings* erect during repose, entire, elongate, with a flavescent ground, anterior in the males with a protuberance at the base as in the foregoing genus, posterior beneath longitudinally banded with white. *Larva* with 10 legs, smooth, not tubercular, reposes at full length; pupa folliculated.

The genus *Bupalus* was established by Dr. Leach nearly twenty years since—long anterior to the publication of Treitschke's arrangement of the *Geometridæ*—notwithstanding which the continental naturalists have not thought proper, in accordance with their own precepts, to adopt it; but the type being found in Britain, I have of course reverted to the original appellation: it is closely allied to *Speranza*, with which it agrees in having the wings erect, flavescent, with the anterior in the males having a protuberance at the base, and the posterior longitudinally streaked with white; but the antennæ are bipectinated to the apex: the females are larger than the males.

Sp. 1. Piniarius. *Alis fuscis flavo-maculatis, subtus nebulosis, fasciis duabus fuscis.* (Exp. alar. 1 unc. 6—8 lin.)

Ph. Ge. Piniaria. *Linné.*—*Don.* x. 27. pl. 336.—*Bu.* Piniarius. *Steph. Catal.* part ii. p. 115. No. 6444.

Fuscous: wings deep fuscous, the anterior with a transverse pale-yellowish (or whitish) trilobed patch, and a longitudinal band of the same colour, divided by two transverse strigæ on the posterior, both of which are more or less irrorated with fuscous or black; cilia yellowish interrupted with brown: anterior wings beneath somewhat similar, but paler, with the apex whitish; the posterior white, irrorated with ochraceous-brown, with two waved transverse strigæ of the same colour, the white ground forming a longitudinal streak of that hue. Female marked like the male, but the ground colour of the wings above is reddish-brown, with orange-yellow spots: the body is also reddish-brown, sprinkled with yellowish.

Rather variable in colour. Caterpillar green, with five longitudinal lines; the dorsal one whitish, the next on each side yellowish-white, and the others yellow:—it feeds on the *Pinus sylvestris* and *P. abies*.

Rare till within these few years within the metropolitan district; it is, however, far from common: it frequents fir plantations, and I have taken a few specimens near Ripley. In Norfolk, I believe, it has been taken in abundance, as also in some parts of Scotland. “Justice Town, Newby Cross, Floses, &c.”—*T. C. Heysham, Esq.* “Meldon-park, Northumberland.”—*G. Wailes, Esq.*

GENUS CLXV.—FIDONIA, *Treitschke*.

Palpi minute, short, clothed beneath with long velvety hairs, above squamous, triarticulate, the basal joint curved, shorter, and more robust than the second, which is elongate attenuated to the apex, the terminal very minute: *maxillæ* shorter than the antennæ. *Antennæ* rather long, each joint, excepting three or four at the tip, furnished on both sides with a slender, elongate, deflexed, ciliated ray, gradually decreasing in length to the apex; simple and pubescent within in the females: *head* small: *thorax* slender and scaly: *wings* entire, rounded, sprinkled with minute dots, forming by their union more or less distinct strigæ: *body* slender, slightly carinated. *Larva* with ten legs, elongate-cylindric, the head round: pupa subterraneous.

The genus *Fidonia* of *Treitschke* contains such an heterogeneous assemblage of discordant insects, and the characters which he has assigned thereto are so meagre, that it becomes absolutely necessary to disunite them, and to attempt a more rigid definition of the genera than he has employed, ere we can gain much information

respecting the habits of the species, many of which are still retained under the above generic name by Duponchel:—dismembered as the genus is in my Systematic Catalogue, I suspect that the few insects here retained are far too discrepant to be strictly associated together; and if the first species in Treitschke's arrangement is to be taken as the type, probably the name itself ought to be changed, the antennæ in Duponchel's copy of Hübner's figure (*Geo. cebraria*) being scarcely pectinated; but as I have never seen that insect, it is here retained in preference to coining a new one:—the antennæ of the males are very plumose.

Sp. 1. *atomaria*. *Alis albido-lutescentibus præatomosis, strigis subanastomosantibus fimbriatque saturatioribus communibus.* (Exp. alar. 1 unc.—1 unc. 3 lin.)

Rh. Ge. *atomaria*. Linné.—Don. vii. pl. 248. f. 1, 2.—Fi. *atomaria*. Steph. Catal. part ii. p. 115. No. 6441.

Deep brown, irrorated with yellowish: wings flavescent or deep ochraceous, speckled throughout with minute brown dots, each wing with four transverse strigæ of the same colour, the second and third generally united on the inner margin, the fourth frequently interrupted in the middle, or united to a fifth striga on the margin itself: cilia flavescent, interrupted with brown. Female marked as in the male, but the ground colour of the wings dull white, or slightly tinted with pale yellow.

Extremely variable in colour, and the strigæ more or less obliterated: in some examples the latter are so considerably expanded as almost to cover the entire surface of the wings, causing them to become fuscous.

Caterpillar when young green, with reddish spots on each side of the body; afterwards yellow-brown, with a deeper longitudinal dorsal stripe, on each side of which, on each segment, are small triangular deep-brown spots, and beneath these a longitudinal streak, the stigmata edged with black. It feeds upon the various species of scabious, changes beneath the earth into a brown pupa, which is tumid in the middle, with its posterior extremity acute.

Extremely abundant on heathy places within the metropolitan district in May or June, and again in August, especially in the vicinity of Darenth-wood, and at Hertford. “Epping.”—*Mr. Doubleday*. “In the fens of Cambridgeshire, abundant.”—*Rev. L. Jenyns*. “Heaths, in plenty, Durham.”—*G. Wailes, Esq.* “Rae-hills, Dumfries-shire, very common.”—*Rev. W. Little*. “Abundant on all the heaths near Carlisle.”—*T. C. Heysham, Esq.* “York and Newcastle, on heaths.”—*W. C. Hewitson, Esq.*

Sp. 2. carbonaria. *Alis omnibus saturate piceo-fuscis, punctis parvis albidis, ciliis albis fuscisque.* (Exp. alar. 11 lin.)

Ge. carbonaria. Haworth.—Fi. carbonaria. *Steph. Catal. part ii. p. 115. No. 6442.*

Dull-brown, with minute paler irrorations: wings deep pitchy-black, with a few whitish spots or blotches: cilia whitish and fuscous: antennæ black, irregularly annulated with white.

Probably a mere suffused variety of the preceding.

Taken on heaths near London, in the middle of June.

Sp. 3. fuliginaria. *Nigra, alis strigis tribus flavescentibus undatis subinterruptis.* (Exp. alar. 11 lin.)

Ge. fuliginaria. Haworth.—Fi. fuliginaria. *Steph. Catal. part ii. 115. No. 6440.*

Black: wings with undulated flavescent strigæ, the first near the base a little bent, and sometimes evanescent; the second, common to all, a little behind the middle, and curved outwardly; the third obscure and towards the margin; behind this is a common obscure striga of flavescent dots.

This may be the Ge. fuliginarius of Linné, as referred to by Mr. Haworth; but whether it is synonymous with the Ge. carbonaria of Hübner, which Treitschke and Duponchel place in the genus Gnophos, is doubtful.

Extremely rare in this country: three or four examples only have been captured in the neighbourhood of London during the last thirty years; one fine specimen, which is now in Mr. Bentley's cabinet, was caught upon Blackfriars-bridge in June, about twelve years since. "In a coal-cellar at Little Chelsea."—*A. H. Haworth, Esq.*

Sp. 5. ericetaria. *Alis cinereis, fusco-irroratis, anticis strigâ mediâ fimbriâque saturatioribus.* (Exp. alar. ♂ 1 unc. 7—8 lin.: ♀ 1 unc. 3—6 lin.)

‡Sp. 4. melanaria. *Alis nigro punctatis maculatisque; anticis albidis, posticis luteis.* (Exp. alar. 1 unc. 8 lin.)

Ph. Ge. melanaria. Linné.—Haworth (!).—N. G. melanaria. *Steph. Catal. part ii. p. 137. No. 6591. note.*

Anterior wings dirty-white, with several rows of black spots of various sizes, the last row terminating the hinder margin; posterior luteous, irregularly spotted with black, the outer series parallel with the margin.

Mr. Haworth says, "I have heard that this is a British species, and therefore here enumerate it, although I have not seen any but foreign specimens."

Which being the case with me compels me to insert the description in a note.

Rh. Ge. ericetaria. *Villers*.—Fi. ericetaria. *Steph. Catal. part ii. p. 115. No. 6443*.—Geo. plumaria. *Wien. Verz. ?—Hub. Geo. pl. 23. f. 124?*

Cinereous, sprinkled with fuscous: anterior wings hoary-ash, minutely irrorated, with three equidistant fuscous spots on the costa, the second of which is produced into a distinct slightly bent striga, and the third into an obsolete one composed of lunular spots; behind this last is a broad fuscous band, which also borders the posterior wings, which latter have a dark spot in the centre. The female is smaller, more sprinkled with fuscous, with the strigæ more obsolete than in the male.

Slightly variable in the intensity of the markings and in colour, being sometimes rufescent.

There appears to be some confusion in the references to this species in the works of the continental writers:—it differs from the typical species by having the male antennæ less plumose, the palpi more scaly, and the maxillæ longer.

Not common within the metropolitan district: it has however occurred in the fir plantation near Birch-wood, and in tolerable plenty between Cobham and Ripley in Surrey; but near Ring-weed in the New Forest it has been captured in great profusion in August.

GENUS CLXVI.—*MÆSIA mihi*.

Palpi distinct, not concealed in the hairs of the front, shorter than the head, triarticulate, curved, the basal joint rather longer than the two others united, a little stouter and bent, second cylindric, terminal minute, subglobose: *maxillæ* short. *Antennæ* long, moderately bipectinated in the males to the apex, each joint producing a somewhat acuminate twig on each side, ciliated within; in the females obscurely serrated: *head* short, broad: *thorax* squamous: *wings* deflexed during repose, entire whitish, with transverse lines of dots, and a central dark spot. Metamorphoses unknown.

From *Bupalus* this genus differs not only by the great dissimilarity in the structure of the palpi, but in having the antennæ less pectinated, the wings whitish and strigated, deflexed during repose, without the basal protuberance on the anterior; and the females are smaller than the males.

Sp. 1. *favillacea*. *Alis cinereis, strigis duabus punctoque medio transverso nigris, strigâ posteriore punctata*. (Exp. alar. ♂ 1 unc. 5—7 lin.: ♀ 1 unc. 4—6 lin.)

Ge. *favillacea*. *Hübner*.—Bu. *favillacearius*. *Curtis, i. pl. 33.—Steph. Catal. part ii. p. 116. No. 6445*.

Ashy-white: wings the same, minutely speckled with fuscous, and a black spot in the centre: anterior with a somewhat interrupted, curved, fuscous striga

towards the base, and another waved one towards the outer margin, accompanied exteriorly with two larger black spots upon a reddish ground, one towards the anterior, the other near the posterior angle: posterior wings with a single striga; the margin of all with a row of black spots; cilia ochraceous-white. Female in general much more irrorated with fuscous, with the strigæ of a deeper hue than in the male.

Extremely variable: in some examples the minute fuscous irrorations on the wings are completely wanting.

Also till within these few years esteemed a rare insect: the first examples of recent capture were taken by Mr. Bentley, who supplied my cabinet, in the New Forest, in June, 1819: it has since been found in the same locality in the utmost profusion: the females are comparatively rare. "Prestwick Carr."—*G. Wailes, Esq.*

GENUS CLXVII.—ANISOPTERYX* *mili*.

Palpi minute, slender, squamous, triarticulate; the terminal joint subacute: *maxilla* obsolete. *Antennæ* of the males rather elongate, each joint producing a short ciliated twig, or an elongate fascicle of hairs, on each side, the apex nearly simple; female simple: *head* small, round: *thorax* slender, squamous: *abdomen* very slender, slightly tufted at the apex; rather short and acute in the female: *wings* thin, with the hinder margin entire; anterior elongate-triangular, during repose concealing the posterior, which are orbiculate-triangular, large in proportion to the anterior; colour fuscous, with transverse strigæ; females with imperfect or rudimentary wings. *Larva* with 10 legs, smooth, without tubercles; feed on trees: pupa subterraneous.

This and the two following genera (with other insects to be hereafter mentioned) form a portion of Latreille's genus *Hibernia*, and of the artificial group *Fidonia* of Treitschke; but as I consider that a discrepancy of structure in either sex to its nearest allies points out a diversity of habit, it becomes necessary to break down the Latreillian genus above referred to, as the female of the present offers many points of dissimilarity to the other species, and the male itself is also widely different in contour.

Sp. 1. *leucophearia*. *Alis anticis griseo-fuscis aut nigris, nebulosis, fasciâ mediâ angulatâ pallidâ.* (Exp. alar. 1 unc. 4—8 lin.)

Ge. *leucophearia*. *Wien. Verz.*—An. *leucophearia*. *Steph. Catal. part ii. p. 116. No. 6446.* *Harris, A. pl. 43. f. m, n, o, q.*

* *Anisopt.*, *inequalis*; *πτηνογ*, ala.

Gray-brown, irrorated with dusky: anterior wings griseous-brown, or dull-white, dotted with fuscous; with two transverse strigæ of the last colour, one slightly curved towards the base, the other flexuous behind the middle; the former is edged externally with black, and the other internally, and on the outside of the last are three or four dusky or black spots, and between these is sometimes an obscure dusky transverse striga, generally interrupted in the middle; on the hinder margin is a row of minute black lunular dots; cilia ashy and fuscous: posterior wings dull-white, irrorated with fuscous, with sometimes a central transverse black striga. The female has only the rudiments of wings; they are cinereous or fuscous, with three transverse black lines on the anterior, and two on the posterior.

Excessively variable, scarcely two specimens occurring precisely similar: in some cases the anterior wings are black, with a broad central dull-white fascia, and a few white clouds on the black border: the posterior have also occasionally a black fimbria.

Very abundant in oak woods near London, at the end of February and in March, the male flying slowly undulating by day, about noon, especially at Coombe-wood and Oak-of-Honour-wood, Peckham:—it is also pretty generally distributed throughout the country. “Epping.”—*Mr. Doubleday*. “Newcastle.”—*G. Wailes, Esq.*

Sp. 2. *Æscularia*. *Alis fusco-griseis, fasciâ mediâ albo marginatâ extus dentatâ saturatiore, lineolâque apicis obliquâ fuscâ.* (Exp. alar. 1 unc. 4—6 lin.)

Ge. *Æscularia*. *Wien. Verz.*—An. *Æscularia*. *Steph. Catal. part ii. p. 116. No. 6447.*

Griseous-brown: anterior wings of a glossy griseous-brown, finely dotted with black, with two transverse somewhat transparent whitish dentate strigæ, the space between being of a darker hue than the rest of the wings and somewhat irregularly edged with black, and a slightly lunular spot within the fascia towards the costa; between the angle of the hinder striga and the apex of the wing is an oblique fuscous dash: posterior wings whitish-brown, with a faint transverse fascia, and a distinct spot on the disc, brown: the extreme edge of all the wings with a row of minute black spots: cilia pale fuscous. Female with very short rudiments of wings, of a mouse colour, with pale griseous dots on the head and breast.

The male is slightly variable in colour. The caterpillar is green, with a white longitudinal line on each side of the back, and another paler one above the legs, with other indistinct ones on the back and sides:—it feeds on the privet, sloe, and horse-chestnut:—the imago appears in the spring.

Not uncommon on palings and trunks of trees during March, within the metropolitan district. “Epping.”—*Mr. Doubleday*. “Keswick.”—*G. Wailes, Esq.*

GENUS CLXVIII.—HIBERNIA, *Latreille*.

Palpi very short, scarcely reaching beyond the forehead, composed of three short joints, the basal one most robust: *maxillæ* obsolete. *Antennæ* bipectinated to the apex in the males, the radii very fine and ciliated with rather long hairs; simple and rather long in the females: *head* small: *thorax* slender, squamous: *wings* entire, forming a triangle during repose; anterior generally tinted with flavescent, with transverse strigæ; posterior simple; females apterous: *legs* very long. *Larva* with 10 legs, smooth, not tuberculated; head rounded; change in a folliculus on the surface of the ground.

Since I proposed the name *Lampetia* to designate this genus, I have discovered that it has been long employed for a genus of fossils:—I have therefore adopted Latreille's name from Duponchel:—this genus also forms a portion of Treitschke's *Fidoniæ*, but from the typical species of that genus this may be known by the less pectinated antennæ, and elongate thin anterior wings of the males, and the total want of the latter organs in the females:—all the species are brumal, beginning to appear at the fall of the leaf.

Sp. 1. *capreolaria*. *Alis anticis griseo-rufescentibus atomosis, strigâ rectâ anticâ evanescente, fasciâque marginali saturatoribus, in quâ ordo macularum palidarum.* (Exp. alar. 1 unc. 4—7 lin.)

Ge. *capreolaria*. *Esper.*—*La. stictaria*. *Steph. Catal. part ii p. 116. No. 6448. Albin, pl. xliv. f. 72. a—d.*

Pale griseous: anterior wings reddish-griseous, thickly irrorated with ferruginous dots, with an incurved darker striga at the base, a second oblique straight one before the middle, and a repanded fuscous one behind, toward which a marginal rufescent fimbria adjoins, in which is a row of pale spots; the posterior margin has a row of black dots, and between the second and third strigæ, towards the centre, is an oblong fuscous spot, which is frequently united to the third striga: the posterior wings whitish, but little sprinkled with ferruginous, with a fuscous central dot, and an indistinct transverse striga behind the middle. Female with the head reddish: body griseous-brown, with a silken griseous tuft at the apex: legs brown, spotted with yellow.

The male varies considerably in colour, as well as in the intensity of its markings.

Caterpillar fawn-yellow, with the four first segments longitudinally striped with four delicate brown lines edged with bright yellow, and some bright red ones between, the rest of the body varied with brown and yellow dots and lines, with a row of whitish dots on each side; head brown edged with yellow: legs light yellow:—it feeds on the oak and birch:—pupa green-brown, with the abdomen fulvous.

Found abundantly on heathy places by the sides of woods, and on palings and trunks of trees within the metropolitan district, towards the end of February and during March. "Epping."—*Mr. Doubleday*. "Little Orton, Cumberland."—*T. C. Heysham, Esq.* "Newcastle, Meldon-park, &c."—*G. Wailes, Esq.*

Sp. 2. *connectaria*. *Alis atomosis fusco-brunneis, strigis tribus æquidistantibus fuscis, maculâque posticâ costali quadratâ pallidâ.* (Exp. alar. 1 unc. 7 lin.)

Ge. *connectaria*. *Haworth*.—*La. connectaria*. *Steph. Catal. part ii. p. 116. No. 6449.*

Anterior wings speckled with fuscous-brown, with a slightly incurved fuscous striga near the base, a second stouter oblique straight one nearly in the middle, a third repanded one behind, and between it and the margin another obscure striga of somewhat distant pale spots; in the bend of the third striga, towards the costa, is a large pale trapeziform spot sprinkled with fuscous: posterior wings whitish, speckled with very minute darker atoms, with two evanescent strigæ in the middle, and a spot between, fuscous: the hinder margin of all the wings with a row of fuscous spots.

I suspect that this is merely a fine autumnal variety of the foregoing.

Found in November and December in the neighbourhood of the metropolis, but not common. "Epping."—*Mr. Doubleday*.

Sp. 3. *prosapiaria*. *Alis anticis fulvescentibus, atomosis, strigis duabus aut tribus punctoque medio fuscis; posticis pallidis, puncto medio strigâque unicâ.* (Exp. alar. 1 unc. 6—8 lin.)

Ph. Ge. *prosapiaria*. *Linne*.—*La. prosapiaria*. *Steph. Catal. part ii. p. 116. No. 6450.*

Bright fulvous-orange; anterior wings the same, sprinkled throughout with purplish-brown atoms, with an oblique striga of the same hue towards the base, and a second, slightly flexuous one, behind the middle, between which, towards the costa, is a discoidal purplish spot; between the posterior striga and the hinder margin is an interrupted striga of fuscous-purplish spots: posterior wings paler fulvous, with a single transverse purplish-brown striga, and a central spot of the same hue.

Female brown, spotted with grayish-yellow: antennæ and legs black, annulated with yellow.

Variable: in some examples the strigæ on the anterior wings are almost obliterated; others have an additional striga at the base; and the base itself and apex are sometimes (but very rarely) deep fuscous, with an interrupted striga of darker spots towards the hinder margin.

Caterpillar greenish, with a brown longitudinal line edged above with a white streak on each side of the body, above the stigmata: the head and legs pale orange:—it feeds upon the oak, birch, and horn-beam: pupa brown, short; changes finally in October or November.

Found in woods within the metropolitan district, but not common: I have frequently taken it at Coombe in the larva state, and at Darenth. “Netherton.”—*T. C. Heysham, Esq.* “Epping.”—*Mr. Doubleday.* “Neighbourhood of Edinburgh.”—*Rev. W. Little.*

Sp. 4. defoliaria. *Alis anticis flavescentibus aut albidis vel griseis, atomis, puncto medio strigisque fuscis; posticis pallidioribus.* (Exp. alar. 1 unc. 7—9 lin.)

Ph. Ge. defoliaria. *Linné.*—*Wilkes, pl. 36. f. 72.*—*La. defoliaria. Steph. Catal. part ii. p. 117. No. 6451.*

Anterior wings whitish, or ochraceous irrorated with fuscous, with an incurved black striga before the middle, broadly edged within with fuscous, and tinged with rufous; a dusky spot in the middle, and behind a round oblique repanded striga of similar hue with the first; behind which the wings are darker, with the hinder margin itself pale, with a row of fuscous spots upon the nervures; cilia flavescent, interrupted with fuscous: posterior wings paler, with a central fuscous spot; cilia immaculate.

Female yellow, dotted and spotted with black.

The male is extremely variable. The anterior wings are sometimes ferruginous or griseous throughout, with the anal striga darker: the strigæ themselves are more or less obliterated, and sometimes fasciæform: in fact, scarcely two specimens occur precisely similar.

Caterpillar red-brown or ferruginous, with an interrupted bright yellow streak on each side, and a red spot with a white dot on each segment:—it feeds on the oak, lime, beech, ash, alder, birch, elm, &c.: the pupa is red-brown, with the apex very acute: it changes to the perfect state in the autumn or beginning of the winter.

Extremely abundant in woods and copses throughout the metropolitan district. “Epping.”—*Mr. Doubleday.* “Little Orton.”—*T. C. Heysham, Esq.*

GENUS CLXIX.—PHIGALIA, *Duponchel.*

Palpi very short, concealed within the hirsuties of the face, triarticulate, the apical joint minute. *Antennæ* rather slender, elongate, each joint producing a long, slender, ciliated, curved branch on each side, gradually shortened towards the apex and base: simple in the females: *head* slightly crested: *thorax* large, woolly: *abdomen* slender, with a tuft at the apex: *wings* thin, with the hinder margin entire, large in proportion to the body; rudimentary in the females. *Larva* with 10 legs, cylindrical, of equal size throughout, with a few short hairs: head hemispherical, a bifid tubercle on the eleventh segment: pupa naked, in the earth.

Between the contour of this genus and the preceding there is

evidently great similarity; but the thorax is comparatively very robust and densely pilose in this genus, which is a vernal one, the antennæ of the males are broadly pectinated, and of the females rather elongate and simple, and the latter sex has mere rudiments of wings: from Nyssia, the large wings and slender body distinguish this genus.

Sp. 1. pilosaria. *Alis griseo-virescentibus, fusco-irroratis; puncto medio strigisque quatuor interruptis nigris.* (Exp. alar. 1 unc. 6—9 lin.)

Ge. pilosaria. *Wien. Verz.*—*Amphidasis pilosaria.* *Steph. Catal. part ii. p. 117. No. 6452. Albin, pl. xci. f. e. i.*

Head and thorax velvety-greenish-griseous, the latter with a transverse fuscous line in front: anterior wings the same, with a satiny gloss, and sprinkled throughout with brown; the costa with four distinct larger spots of brown, from which arise four rather indistinct transverse strigæ of the same hue: posterior wings similar, but pale, with one or two transverse strigæ; the margin of all with a faint fuscous striga more or less interrupted: cilia immaculate greenish-fuscous: abdomen rufescent; antennæ griseous, with virescent radii. Female with the head and thorax virescent; the abdomen rufescent, with a whitish line down the back; legs dusky, annulated with white. The male is slightly variable in colour, and in the intensity of the strigæ, and its rich hues in a great measure become evanescent with death.

Caterpillar yellow, thickly but irregularly varied with reddish-brown, some ferruginous spots and black dots, from which last arise hairs of the same hue; the last segment of the body, with the head and legs, rusty-brown:—it feeds on the oak, birch, elm, whitethorn, &c. about June: the pupa is brown: the imago appears in March.

Not very common within the metropolitan district: I once met with several specimens on some palings leading from Redpost-hill to Dulwich, and have occasionally taken others. “Alderley, Cheshire.”—*Rev. E. Stanley.* “Allesley.”—*Rev. W. T. Bree.* “Netley.”—*Rev. F. W. Hope.*

GENUS CLXX.—NYSSIA, *Duponchel.*

Palpi very short, triarticulate, densely embedded in silken hairs: *maxillæ* obsolete. *Antennæ* curved, strongly bipectinated in the males, each joint producing a ciliated twig on each side; pubescent in the females; *head* small, deeply inserted in the *thorax*, which is thick and woolly: *wings* thick, and small in proportion to the body, the hinder margin entire; totally wanting in the female: *abdomen* robust, conic, pilose.

Larva with 10 legs, cylindrical, slightly attenuated at each end, smooth, and slightly tuberculated; head hemispherical: pupa naked, subterranean.

In my Catalogue I separated this and the preceding genus from Biston under the single term *Amphidasis*, but I am now convinced that the two indigenous species belong to different genera, as proposed by Duponchel, whose names I have adopted, *Amphidasis* being rather synonymous with Biston. From *Phigalia*, *Nyssia* may be known by its stouter and narrower wings, which are very small in proportion to the body, while the latter is stouter than in *Phigalia*: the form of the larva is different, &c.

Sp. 1. *hispidaria*. *Alis cinereo-fuscis, strigâ undatâ obscuriore, margine albo-punctato, antennis ferrugineis.* (Exp. alar. ♂ 1 unc. 3 lin.)

Ge. *hispidaria*. *Wien. Verz.*—*Amp. hispidaria*. *Steph. Catal. part ii. p. 117. No. 6453.*—*Ph. Ursularia*. *Don. xiii. pl. 447.*

Head and thorax griseous: anterior wings ashy-brown, with a lighter band at the hinder margin, and with three dusky strigæ on the disc, the two anterior of which are curved, and the posterior flexuous: posterior pale fuscous, with a faint dusky line behind the middle: cilia of all pale, with large rhomboid fuscous spots: antennæ pale ferruginous: abdomen rufescent. Female with the head, thorax, and abdomen coloured as in the male, antennæ dusky with very fine brown hairs.

Caterpillar brown, with quadrate deeper spots: it feeds in the elm:—the imago is produced towards the end of March.

Rare: specimens have been taken in Richmond-park, and at Coombe and Birch woods. “Netley.”—*Rev. F. W. Hope.*

GENUS CLXXI.—BISTON*, *Leach.*

Palpi very short, velvety, triarticulate: *maxillæ* very short. *Antennæ* rather long, straight, strongly bipectinated in the males (in the type to the apex), each joint producing a ciliated branch decreasing in length towards the base and the apex; three terminal joints sometimes simple, as the entire are in the

* This and the two preceding genera form the section *Bombycariæ* of Haworth, a division of the same import as those which have been recently, but incorrectly, termed *genera* when employed by Hübner †, and which, from parity of reasoning, should have been adopted, were the name tenable, for the present genus, Hübner's *sectional* names being proposed long posterior to Haworth's.

† Amongst other absurd attempts to force Hübner's names into circulation, my genus *Nœnia*, which forms a portion of his *Lemures*, has been lately changed to *Lemuris*!! the genitive case singular of *Lemur*, a quadruped, for it can have no other derivation, *Lemure* having, as is well known, no singular number.

females: *head* small, deeply inserted in the thorax, velvety: *thorax* stout, woolly: *wings* thick, sometimes subdiaphanous, small in proportion to the bulk of the body; present in both sexes, with the hinder margin entire: *abdomen* robust, slightly tufted at the apex in the males, acute in the females. Larva with ten legs, elongate, cylindrical, tuberculated; head flat, more or less emarginated in front: pupa naked, subterraneous.

Biston was proposed as a genus by Dr. Leach in the Edinburgh Encyclopædia above twenty years since, his name consequently has the priority of Amphidasis of Treitschke, published within these six years, and improperly retained by Duponchel:—the species are the most robust of the family, and bear considerable resemblance to the Notodontidæ, but the different texture of their wings and the structure of the antennæ (exclusively of the diversity in the larvæ) sufficiently point out their distinctions. Should it eventually appear advisable to break up the genus, the first species ought to bear the name Biston, and the second Amphidasis.

A. With the antennæ, in the males, bipectinated to the apex.

Sp. 1. *prodromaria*. *Alis albidis, fusco-pulverulentis, anticis fasciis duabus flexuosis brunneis nigro-terminatis*. (Exp. alar. ♂ 1 unc. 6—10 lin.: ♀ 1 unc. 8 lin.—2 unc. 1 lin.)

Ph. Ge. *prodromaria*. *Wien. Verz.*—*Don. vii. pl. 219.*—*Bi. prodromaria*. *Steph. Catal. part ii. p. 117. No. 6454.*

Anterior wings above whitish or cinereous, sometimes flavescent; delicately sprinkled with fuscous-black, with two transverse flexuous coffee-brown fasciæ, edged on one or both sides with black, one near the base, the other towards the hinder margin; posterior wings paler or rufescent, dotted with brown, with a single flexuous, more or less evanescent, brown fascia; cilia of all interrupted with brown: head and thorax white, the latter dotted with brown: abdomen reddish, dotted with black: antennæ black, annulated with white: the radii in the male griseous. Female larger, of a clearer white, with the transverse brown fasciæ on the wings more deeply edged with black.

Very variable: some examples are so thickly irrorated with brown-black as to have the transverse strigæ scarcely visible; and amongst my series, which is very extensive, I possess a specimen entirely of a dull-brown with black dots, and a single angulose transverse black striga on the anterior wings; others have the posterior fascia extending entirely to the hinder margin; and one female has the posterior wings totally fuscous.

Caterpillar variable; brown or ashy, marbled with yellow or dusky, with white dots and 14 tubercles, the four penultimate of which are largest: it feeds on the oak, lime, birch, poplar, &c. in June:—the imago appears in March or

April:—the pupa is chestnut-brown, shining, with a spine terminating in two diverging hooks at the apex.

Found in woods round London during the month of April or towards the end of March, but not common. “York.”—*W. C. Hewitson, Esq.* “Allesley.”—*Rev. W. T. Bree.*

B. With the antennæ of the males simple at the apex.

Sp. 2. *Betularius*. *Alis omnibus albis nigro confertim irroratis, nebulosis, interdum nigro-flexuoso-strigosis, thorace fasciâ nigrâ.* (Exp. alar. ♂ 1 unc. 6—10 lin.: ♀ 2 unc. 3—4 lin.)

Ph. Ge. *Betularia*. *Linné.*—*Don.* vii. 55. pl. 231.—*Bi. Betularius*. *Steph. Catal.* part ii. p. 117. No. 6455.

White, spotted with black: anterior wings the same, more or less thickly spotted and clouded with irregular black dots, which are frequently united so as to form transverse flexuous strigæ, and five or six very distinct black clouds on the costa, whence the strigæ arise; the hinder margin is also marked with larger clouds: posterior wings also irrorated with black, with a lunule of the same on the disc, behind which is usually a flexuous black striga; cilia of all spotted with black.

Also extremely variable in colouring, arising from the greater or less confluence of the black dots which adorn the wings; in some instances the latter colour is so predominant as to render the wings almost black, but such varieties are rare.

Caterpillar variable; ochraceous or greenish, sometimes brown, with a reddish dorsal line, or ashy, with two tubercles on the eighth and two on the eleventh segments, tipped with black or rufescent; head deeply emarginate: it feeds on the oak, willow, rose, poplar, elm, &c.; and the imago appears in June: the pupa is brown, shining, with a long spine at the apex.

Common in the woods about London in June; also in other parts. “Cramond, near Edinburgh.”—*Rev. W. Little.* “York and Newcastle.”—*W. C. Hewitson, Esq.* “Cummersdale, Orton, &c.” *T. C. Heysham, Esq.* “Near Cambridge, &c.”—*Rev. L. Jenyns.* “Newcastle.”—*G. Wailes, Esq.*

Sp. 3. *hirtarius*. *Alis hirtis canis, lutescentibus aut griseis vel fuscis, strigis nigris, posterioribus approximatis.* (Exp. alar. ♂ 1 unc. 6—8 lin.: ♀ 1 unc. 8—10 lin.)

Ph. Ge. *hirtaria*. *Linné.*—*Bi. hirtarius*. *Steph. Catal.* pt. ii. p. 118. No. 6456. *Harris, A.* pl. 9. f. a—f.

Fuscous, dotted with griseous: anterior wings hoary, lutescent or griseous, or fuscous, with dusky irrorations, and three or four transverse black strigæ, more or less curved and approximating, sometimes parallel, at others united on the inner margin; towards the hinder margin is generally a flexuous

whitish fascia: posterior wings the same, with the transverse strigæ less distinct and generally but two in number: cilia interrupted with fuscous. Female with the wings more transparent and greenish, and the markings less distinct.

In some instances the insect is almost entirely black; and the strigæ vary exceedingly in width and intensity, as also in their relative positions.

Caterpillar variable, generally brown, spotted with griseous, with several longitudinal pale streaks, bordered with black, the head rounded, and on the back are 10 slightly elevated yellow tubercles, and two black ones behind: legs yellow tipped with reddish:—it feeds on the poplar, lime, and elm, and appears in the perfect state in April: the pupa is short, rugose, dull black, with a fine point at its extremity.

Very abundant amongst poplars and limes in the immediate vicinity of London, and not uncommon in other parts of the metropolitan district. “Occasionally met with in the neighbourhood of Bottisham.”—*Rev. L. Jenyns*.

GENUS CLXXII.—HIMERA, *Duponchel*.

Palpi very short, concealed within the hairs of the front, pilose, triarticulated. *Antennæ* rather long, plumose in the males, each joint producing obliquely a setaceous ciliated branch, shortest towards the apex and base; subserrated in the females: *maxillæ* not very short, slender: *head* densely pilose, the hairs forming a conical projection between the antennæ: *thorax* robust, very woolly: *wings* rather thin, all slightly dentate on the hinder margin, with a central dark spot, the anterior with two strigæ and the posterior with one: *body* moderately stout, with an anal tuft in the male, very robust and acute in the female, which is usually the smallest sex. *Larva* with 10 legs, cylindrical, smooth, with two fleshy points directed backwards on the penultimate segment; head small, rounded: pupa superficial.

This is the genus *Metra* of my Catalogue, but as *Duponchel* has subsequently given the name it here bears, and detailed its generic characters, I of course have adopted it: the only known species is autumnal: the strongly pectinated antennæ of the male, and the subserrated ones of the female, combined with the bulk of the thorax, and subangulated wings, distinguish the genus.

Sp. 1. pennaria. *Alis anticis rufescentibus, strigis duabus incrassatis ad costam punctoque interjecto fuscis, punctoque apicis nigro, albo adnato.* (Exp. alar. 1 unc. 9 lin.—2 unc.: ♀ 1 unc. 6 lin.—2 unc. 3 lin.)

Ph. Ge. pennaria. *Linné*.—*Don*. viii. pl. 287. f. 2.—*Metra pennaria*. *Steph. Catal.* part ii. p. 118. No. 6457.

Rufous, with obscure darker irrorations; anterior wings with a straight, oblique striga before, and a second slightly arched one behind, the middle, the latter bordered outwardly with whitish; between it and the apex a blackish spot, united to a snow-white one, and a fuscous one between the strigæ: posterior wings rather paler, with a central fuscous spot and a transverse fuscous striga. Female generally paler.

Extremely variable, some specimens being bright rufous and unspotted, others the same, and thickly speckled and clouded with fuscous, with the transverse strigæ on the anterior wings very dark and broad, sometimes parallel and distant, at others nearly or totally united on the inner margin—the last variety forming the *Ge. bifidaria* of Haworth: the ground colour is occasionally griseous or ochraceous, and the strigæ nearly obliterated:—the female is generally smaller, with the wings narrower than the male; but I possess a gigantic specimen, nearly half an inch wider than the largest male I ever beheld.

Caterpillar griseous, varied with brown and white, with two reddish tubercles on the penultimate segment, and two spots of the same colour on the first, which is bordered with reddish on the sides of the head:—it feeds on the oak, horn-beam, beech, &c.: the imago appears towards the beginning of October.

Not uncommon in the woods throughout the metropolitan district. “Black-hall-woods.”—*T. C. Heysham, Esq.* “Alderley, Cheshire.”—*Rev. E. Stanley.* “Epping.”—*Mr. Doubleday.* “Melton-park.”—*G. Wailes, Esq.*

GENUS CLXXIII.—CROCALLIS, *Treitschke.*

Palpi projecting beyond the forehead, very pilose, with the apex squamous and pointed, triarticulate; *maxillæ* obsolete. *Antennæ* moderate, shortly bipectinated to the apex in the males, the pectinations shortening towards the tip, deflexed and curving inwards, simple in the females: *head* pilose, round: *thorax* very robust, woolly: *wings* rather broad in proportion to their length, all with the hinder margin slightly denticulate, and with a dark central dot; anterior with two transverse strigæ: *abdomen* moderately stout, with an anal tuft in the male, robust and slightly acute in the female. Larva with 10 legs, cylindric, rugose, not tubercular, with a few scattered hairs: head as large as the anterior segments, a little depressed anteriorly: changes in a cocoon on the ground amongst moss or leaves.

Crocallis, although an insect of great bulk, differs from the allied genera by totally wanting the *maxillæ*: the wings are broader and stouter than in *Himera*, and less angulated than in *Odontopera* or *Geometra*.

Sp. 1. elinguaris. *Alis flavis, anticis fasciâ latâ obscuriore, puncto medio nigro.*
(Exp. alar. 1 unc. 6—8 lin.)

Ph. Ge. elinguaris.—*Linné*.—Cr. elinguaris. *Steph. Catal. part ii. p. 118. No. 6458. Albin, pl. xxxix. f. 63. c—h.*

Pale luteous-yellow: anterior wings with a straight striga before the middle, and a slightly repanded oblique one behind, the space between rather darker, and between these strigæ is a fuscous or black dot: posterior wings paler immaculate.

Variable: in some instances the hinder margin of all the wings has a row of fuscous dots, and the fascia on the anterior is occasionally fuscous, with the strigæ nearly black; these latter always approximate towards each other on the inner margin:—the posterior wings have sometimes a dark central spot, and a faint transverse striga behind the middle.

Caterpillar robust, dull brown, slightly pilose: it feeds on various trees and herbs—on the oak, elm, apple, honeysuckle, &c.: the imago appears in June.

Not uncommon in the woods round London, and in other parts.
“Hebden-bridge.”—*Mr. Gibson*. “York, Newcastle, Halifax.”
W. C. Hewitson, Esq. “Durdan.”—*T. C. Heysham, Esq.* “Epping.”—*Mr. Doubleday*. “Meldon-park, Keswick, &c.”—*G. Wailes, Esq.*

GENUS CLXXIV.—ODONTOPERA * *mihi*.

Palpi distinct, porrected obliquely upwards, densely pilose at the base, the apex squamous and exposed, triarticulate, the basal joint a little bent, and robust, the second rather longer, attenuated to the apex, the terminal minute, placed obliquely: *maxillæ* elongate. *Antennæ* long, of the males each joint produces a short, clavate twig on each side, the twigs gradually shortening to the apex; of the females slightly serrated within: *head* rounded: *thorax* stout, velvety: *abdomen* rather stout, with a tuft at the apex, more robust and obtuse, with the apex ciliated, in the females: *wings* slightly deflexed; the hinder margin of the anterior deeply and irregularly, and of the posterior slightly and regularly, dentate; all with a central ocellar spot. Larva with 10 legs, elongate, cylindric, with a few scarcely elevated tubercles; head slightly emarginate above: pupa changes in a delicate cocoon in moss or under leaves.

Odontopera differs from the foregoing genus not only by having the maxillæ distinct and elongate, but in the form of its wings, which are more slender in proportion to the bulk of the body, and very deeply notched; from Geometra it differs in having the an-

* Οδον, dens; Πηγας, terminus.

tennæ differently pectinated, and also in the form and dentation of its wings, the posterior of which are not angulated; it also reposes with them deflexed:—the larva is likewise of different form.

Sp. 1. bidentata. *Alis anticis fusco-cinerascentibus, atomosis, strigis duabus undulatis annuloque interjecto fuscis.* (Exp. alar. 2 unc. — 2 unc. 2 lin.)

Ph. Ge. bidentata. *Linné.*—N. G. bidentata. *Steph. Catal. part ii. p. 6459.*—*Harris, A. pl. 10. f. s-z.*

Ashy or reddish-brown: anterior wings the same, very finely dotted with fuscous, with an undulated brownish stigma towards the base, and another behind the middle, more or less approximating on the inner margin, and between them, towards the costa, an oblong fuscous ring, enclosing a whitish spot: posterior wings rather paler, with an ocellated spot on the disc as in the anterior, and behind it an undulated fuscous striga.

Variable in tint, some specimens being much darker than others, without reference to sex, as I have light and dark examples of both: the female, however, has the hinder margin of the wings more strongly dentate, exclusively of the difference in the antennæ:—the relative position of the strigæ, on the anterior wings, to each other, varies much in different examples.

Caterpillar variable, griseous marbled with brown, or green, or grayish-red; sometimes nearly green, with irregular black or white spots:—it feeds on various trees, such as the rose, willow, fir, alder, &c.;—the pupa is thick, smooth, and chesnut-brown; and changes to the perfect state either in April or June, the insect being double-brooded.

Not very uncommon in woods and copses near London. “Hebden-bridge.”—*Mr. Gibson.* “Epping.”—*Mr. Doubleday.* “Meldon-park, Newcastle, &c.”—*G. Wailes, Esq.*

GENUS CLXXV.—GEGMETRA, *Leach.*

Palpi rather long, approximating, porrected and a little inclined downwards, very pilose, the apex exposed and squamous, triarticulate, the basal joint stout, longer than the second, which is cylindric, a little attenuated towards the apex, terminal minute, subglobose: *maxillæ* slender, short, scarcely exceeding the palpi in length. *Antennæ* of the males bipectinated to the apex, the radii ciliated and incurved; of the females slightly serrated on both sides: *head* small; *eyes* rather prominent: *thorax* robust, very woolly: *abdomen* moderately stout, robust and obtuse in the females: *wings* flavescent, angulated, and indented on the hinder margin; during repose elevated, especially in the second section. *Larvæ* more or less elongated, resembling twigs, the body having various tubercular excrescences: head depressed, slightly emarginate anteriorly: pupa clongate, generally in a folliculus among leaves.

I have followed Dr. Leach in applying the term *Geometra* to this genus, from the circumstance of the typical species chiefly forming the first division of the Linnean *Geometræ*: Duponchel follows Treitschke in calling the genus *Ennomos*, but as the present genus forms a portion of the two last sections of the last-named author's *Ennomi* (the type of his genus being *En. flexula*, hereafter described by *that* name), that appellation is consequently incorrect. The *Geometræ* are gay and lively insects, the males, especially of the second division, delighting in flying in the solar rays, and during repose sitting with their wings erect, and exposing their beautiful under surfaces; they frequent woods, and are usually of brilliant tints of yellow or fulvous, with transverse strigæ, and occasionally some transparent lunular discoidal marks, as in the *Bombycidæ*: their larvæ are tubercular, and resemble twigs.

A. With the posterior wings distinctly angulated.

Sp. 2. *Tiliaria*. *Alis fulvis, fusco-irroratis, anticis strigis duabus subincurvis lunulæque fuscis, thorace sulphureo.* (Exp. alar. 1 unc. 4—6 lin.)

Ge. *Alniaria*. *Haworth.*—*Steph. Catal. part ii. p. 119. N^o. 6460: excl. syn. Linn., &c.*

Deep fulvous-yellow: anterior wings thickly dotted, and the costa more or less clouded, with fuscous, with two slightly incurved oblique nearly parallel fuscous strigæ, between which is an elongate fuscous spot, mostly arising on the costa: hinder margin slightly spotted with black: posterior wings less irrorated, with an obscure fuscous transverse central striga; the hinder margin sometimes darker, with fulvescent or ustulated spots on the angles of the denticulations; thorax bright sulphur yellow. Both sexes alike. The position of the strigæ varies but little, but the wings vary slightly in colour.

Caterpillar tubercular, deep brown, with lighter and whitish shades; head flat, small:—it feeds on the lime, alder, &c.:—the imago appears towards the end of August, but is rare.

Taken in the woods about London, especially at Darenth and

Sp. 1. *Alniaria*. *Alis flavis, fusco-pulverulosis, anticis strigis duabus, obsoletis, aut subinterruptis, fuscis.* (Exp. alar. 2 unc. 1—2 lin.)

Ph. Ge. *Alniaria*. *Linn.*—*Stewart (!).*

Wings fulvous-yellow, irrorated or spotted with fuscous, the anterior with two very obsolete fuscous strigæ in the male, and two stouter interrupted ones in the female, the hinder margin spotted with black on each angle: thorax fulvous.

Said by Stewart to inhabit England, but probably from the circumstance of Donovan having given a figure of Ge. *Quercinaria* by the above name.

Birch woods, and occasionally at Coombe and Hertford, but far from common. “Cummersdale.”—*T. C. Heysham, Esq.*

Sp. 3. *Canaria*. *Alis in utroque sexû ferè flavis, anticis fulvo-irroratis, strigis duabus lunulâque saturatioribus, posticis maculâ mediâ fuscâ.* (Exp. alar. 1 unc. 4—6 lin.)

Ge. *Canaria*. *Hübner?*—*Steph. Catal. part ii. p. 119. No. 6461.*

Wings in both sexes nearly yellow, slightly clouded with fulvous towards the tips, and a little irrorated with the same; the anterior with two somewhat incurved, subparallel, fulvescent strigæ, and a lunule of the same hue between; posterior with a central fuscous spot: the hinder margin of all sometimes spotted with fuscous or black: thorax pale sulphureous.

Differs from the last by its smaller size, from the want of fuscous irrorations on the wings, which are of a far paler hue.

Found within the metropolitan district towards the end of August, but rare.

Sp. 4. *ochraria*. *Alis omnibus pallidè ochraceis immaculatis, anticis strigis duabus lunulâque obsoletâ fulvescentibus; thorace flavo.* (Exp. alar. 1 unc. 3—5 lin.)

Ge. *ochraria*. *Steph. Catal. part ii. p. 119. No. 6462.*

Wings pale ochraceous, immaculate; anterior with two slightly incurved fulvescent strigæ, generally approximating on the inner margin, and an obsolete dusky lunule between, towards the costa: posterior immaculate, sometimes slightly fulvescent towards the hinder margin, which is always immaculate on all the wings: thorax bright pale yellow.

The angles of the posterior wings are longer than in the foregoing insect, although the insect is considerably smaller.

Also found within the metropolitan district, but uncommon: I have taken it at Darenth.

Sp. 5. *erosaria*. *Alis luteis, anticis truncatis medio strigis duabus oblique sub-rectis, thorace anticè fulvo, posticè luteo.* (Exp. alar. 1 unc. 4—7 lin.)

Ge. *erosaria*. *Wien. Verz.—Steph. Catal. part ii. p. 119. No. 6463.*

Wings luteous, immaculate; anterior truncate at the apex, with two oblique nearly straight deep fuscous strigæ, the outer one a little expanded: posterior wings rather of a deeper hue, generally immaculate, but sometimes with an obsolete transverse central striga: thorax anteriorly fulvous, posteriorly luteous. Female generally rather darker in colour.

Both sexes vary a little in colour: in some males the wings are pale ochraceous, and the strigæ approximate more or less on the inner margin.

Larger than the foregoing species, with the angle of the posterior wings more produced in proportion to the size; and from the following it differs in having the anterior wings distinctly truncate at the apex.

Common in August throughout the metropolitan district, in woods, parks, &c.

Sp. 6. *Quercinaria*. *Alis fulvis, atomis evanescentibus, aut griseo-albicantibus, brunneo valdè atomosis, anticis strigis duabus saturatioribus; posticis immaculatis; thorace fulvo.* (Exp. alar. 1 unc. 4—8 lin.)

Ge. *Quercinaria*. *Hübner.—Steph. Catal. part ii. p. 119. No. 6464. Ph. Ge. Alniaria. Don. viii. 61. pl. 275. f. 1.?*

Male with the wings fulvous, the anterior with minute darker irrorations and two transverse distinct oblique strigæ, the anterior one angulated near the costa, the posterior slightly curved, with a dark cloud beyond; the hinder margin truncate, and slightly hollowed out; posterior wings immaculate, with an obsolete transverse striga: thorax rather slender, fulvous. Female with the wings whitish-yellow, much spotted and clouded with brown, with two broad deep brown transverse strigæ; and the nervures slightly brunneous.

Variable in colour; and the hinder margin of the posterior wings is generally strongly tinted with brown or deep fulvous, with a deeper brown marginal line.

Also common within the metropolitan district. “Netley.”—*Rev. F. W. Hope*. “Allesley.”—*Rev. W. T. Bree*.

Sp. 7. *Quercaria*. *Alis omnibus in utroque sexû griseo-albicantibus anticis strigis duabus fuscis, fasciâ fuscescenti ad strigam secundam externè adnato.* (Exp. alar. 1 unc. 6—8 lin.)

Ge. *Quercaria*. *Hübner.—Steph. Catal. part ii. p. 119. No. 6465.*

Wings in both sexes of a pale whitish-griseous; the anterior spotted with fuscous or brownish, with a broad curved fuscous striga towards the base, and a second behind the middle, slightly flexuous, adjoining to which is a broad, indeterminate brown fascia: the base of the wings is sometimes of similar hue, and the nervures slightly dusky: posterior with a distinct fuscous transverse striga, and the hinder margin fuscous: thorax pale whitish-griseous.

The perfect resemblance between the sexes of this species, and the great difference between its male and that of the foregoing and following species, appear sufficient to recognise its pretensions as a species.

Apparently rare: I have seen but few examples, all of which were captured in the vicinity of the metropolis.

Sp. 8. *angularia*. *Alis retusis fulvis, fæminæ pallidioribus, anticis strigis duabus lunulâque in medio obsoletâ fuscis.* (Exp. alar. 1 unc. 4—8 lin.)

Ge. *angularia*. *Wien. Verz.—Steph. Catal. part ii. p. 119. No. 6466.*

Male with the wings fulvous, the anterior with two transverse, subparallel, fuscous strigæ, behind the latter of which the wing is of a darker hue, than the disc, to the hinder margin itself, and the base is generally the same; between the

strigæ is an obsolete lunular fuscous mark: the posterior wings have the hinder margin darker, and an obscure transverse central striga. Female with the wings paler, the anterior with two strigæ as in the male; the posterior with the hinder margin darkest, and a faint transverse striga.

Extremely variable: in some examples, though rarely, the base and apex of the anterior wing, anterior to the first, and behind the second, striga, are sometimes deep fuscous; at others merely clouded with the same, but the strigæ are generally subparallel:—the tint of colour also varies.

Caterpillar reddish-brown, greenish beneath, with black spots and white dots, the tubercles dusky, with their tips greenish: head and anterior legs yellow:—it feeds on the oak, lime, elm, &c.:—the pupa is pale green, with the abdomen yellow.

Very common throughout the metropolitan district in August and the beginning of September.

Sp. 9. *Carpiniaria*. *Alis anticis truncatis pallidè fulvis, anticis strigis duabus fusciscentibus, posticè fusciscentibus.* (Exp. alar. 1 unc. 5—6 lin.)

Ge. *Carpiniaria*. *Hübner*.—*Steph. Catal. part ii. p. 119. No. 6467.*

Anterior wings pale fulvous, with two transverse fuscous strigæ, and an obsolete lunular spot between, the space from the hinder striga obscurely tinted with fuscous: posterior wings in both sexes fuscous.

Rare: found, towards the end of August and the beginning of September, in woods and shrubby places within the metropolitan district.

Sp. 10. *fuscantaria*. *Alis anticis truncatis cinerascens fulvis, à strigâ secundâ fuscis; posticis maris semifuscis, posticè fulvis.* (Exp. alar. 1 unc. 4—5 lin.)

Ge. *fuscantaria*. *Haworth*.—*Steph. Catal. part ii. p. 119. No. 6468.*

Anterior wings ashy-fulvous, with two transverse fuscous strigæ, the hinder margin from the second striga also fuscous: posterior in the male fuscous from the base to the middle, the remainder fulvous, and in the female entirely fuscous.

The resemblance between this and the five preceding insects is so close, that Duponchel apparently considers most, if not all, of them as mere variations of one species, the Ge. *angularia* of Hübner; but as there is not only manifest diversity in the form of the wings, and in some of the above the sexes resemble each other in colour and markings, whereas in others there is considerable disparity between them, I cannot coincide with his opinion, mine being formed from repeated examinations of my series of the insects in question, comprising nearly 100 varieties.

Also uncommon: found within the metropolitan district, and in Cambridgeshire.

- B. With the wings dentated; the anterior with a rufous crescent at the apex; the posterior rounded: the under surface with pale lunules.

Sp. 11. *illunaria*. *Alis atomosis cinereo-rufescentibus, anticis strigis tribus sub-æquidistantibus medio, fusco-rufis.* (Exp. alar. 1 unc. 7—9 lin.)

Ge. *illunaria*. *Hübner.*—*Steph. Catal. part ii. p. 119. No. 6469.* Ph. Ge. *ustularia*. *Don. iii. pl. 82.?*

Wings cinereous-red, thickly sprinkled with reddish or fuscous: the anterior above with three somewhat equidistant red-brown strigæ in the middle; the first curved towards the base; the second in the middle broader and of a deeper hue; the third somewhat oblique behind the middle; the apex rufescent, with a short semilunar striga: cilia with ustulated spots: posterior pale, with sometimes an obsolete striga or a pale streak. Beneath, the wings are very thickly irrorated with dark reddish-fuscous or cinerascens, the anterior have three transverse strigæ in the middle, the central one with a white lunule: the posterior have a fuscous striga before the middle, in which is a pale lunular spot, and a white streak behind; from thence to the hinder margin the wing is darker. Females in general darker than the males.

Extremely variable in tint, scarcely two specimens occurring precisely similar; the strigæ are also more or less distinct, and sometimes vary slightly as to their relative positions.

Caterpillar generally griseous, annulated with ferruginous, with some black and yellow spots at the base of the tubercles and on the sides:—sometimes brown, with a ferruginous-red dorsal line, and larger reddish spots on the sides of the hinder segments:—it feeds on oak, willow, alder, &c.:—the imago appears in March or April.

Not very uncommon in woods and bushy lanes towards the end of March and beginning of April within the metropolitan district. “Rockcliff.”—*T. C. Heysham, Esq.* “York.”—*W. C. Hewitson, Esq.* “Epping.”—*Mr. Doubleday.*

Sp. 12. *juliaria*. *Alis cinereo-rufescentibus, anticis strigis tribus obsoletis apiceque rufis.* (Exp. alar. 1 unc. 2—5 lin.)

Ge. *juliaria*. *Haworth.*—*Steph. Catal. part ii. p. 120. No. 6470.* *Albin, pl. xlii. f. 68. a—d.*

Very similar to the foregoing, but always of much smaller size, and of a paler hue: with the strigæ more obsolete, and not equidistant; the wings more dentated, and the females much paler than the males: the under surface of the wings is of a brighter and clearer red, tinted with purple (especially in the males), and the central lunule is less distinct.

With regard to the specific distinctions between this and the foregoing species, there is considerable doubt; the extraordinary facts relative to which are

the small size of the present æstival insects, opposed to their comparatively gigantic vernal ancestors and successors, if they be identical; for in that case, as referred to in a former note (vol. i. p. 18.), the succession of broods is alternately diminished and increased—a physiological fact which is well adapted for investigation, as in other species that have more than one brood in the year, such as *Phlogophora meticulosa*, the individuals of the various births are of equal dimensions.

Very abundant in lanes and shady places by the sides of woods in the beginning of July, in the neighbourhood of London. “Epping.”—*Mr. Doubleday*, who informs me that he has actually reared the present insect from eggs deposited by the vernal female.

Sp. 13. *lunaria*. *Alis griseo-albidis, obsolete atomosis, anticis strigis duabus brunneis, omnibus lunulâ in medio albâ.* (Exp. alar. 1 unc. 5—8 lin.)

Ph. *lunaria*. *Fabricius*.—*Don*. iv. pl. 132.—*Ge. lunaria*. *Steph. Catal. part ii.* p. 120. No. 6471.

Anterior wings griseous-white, or ashy, obsoletely irrorated, with an incurved fuscous striga at the base, and a second slightly flexuous one behind the middle, beyond which the wing is of a paler hue, with a semilunar rufous patch at the apex, the hinder margin irregularly dentate and angulated; between the strigæ is generally a rufescent cloud on the costa, in which is a denuded membranous transparent lunule, common to both surfaces, and from the rufescent cloud frequently arises an irregularly bent rufous striga: posterior wings paler, rounded, deeply but irregularly dentate, with a transparent lunule in the middle, edged with fuscous, and a double transverse fuscous striga, behind which is frequently a third, the space between being reddish. The female paler, more irrorated, but the strigæ less distinct. Beneath the wings are purplish-red, with a central lunule and two transverse strigæ, the space between of a deeper colour.

The colour of the insect varies considerably, and the position of the strigæ slightly.

Caterpillar dirty-green mottled with darker colours, and resembling a piece of bark:—it feeds on the whitethorn; the imago appears in June.

Rather scarce; the only locality where I have ever found it being on some palings in the road leading from Lewisham to Eltham:—it has, however, occurred at Coombe and Darenth Woods. “Nettleton.”—*T. C. Heysham, Esq.* “York.”—*W. C. Hewitson, Esq.* “Warwick, Coleshill, &c.”—*Rev. W. T. Bree.* “Near Jedburgh, Roxburghshire.”—*Rev. W. Little.* “Weston-on-the-green.”—*Rev. A. H. Matthews.*

Sp. 14. *delunaria*. *Alis griseo-albis, haud atomosis, strigâ obliquâ versus mediam communi fuscâ, anticis strigâque aliâ incurvâ in medio, posticis duabus, extus lunulâ obsoletâ diaphanâ.* (Exp. alar. 1 unc. 6 lin.)

Ge. *delunaria*. *Hübner.—Steph. Catal. part ii. p. 120. No. 6472.*

Wings griseous-white, not irrorated; anterior with an oblique fuscous striga a little before the middle, continued to the inner margin of the posterior wings, and behind this in the middle, united to the former at the costa, is an incurved one, vanishing towards the inner margin; adjoining to this on the pale ground of the wing, which from hence to the margin is whiter than the base, is a transparent lunule: the posterior wings have two abbreviated fuscous strigæ in the middle, in addition and behind the common one towards the base, adjoining to the outer of which is an obscure transparent lunule. Beneath, the anterior wings have two strigæ as above, the space between dull fulvous; and the posterior have a broad rufous band near the base, bordered on each side with fuscous.

It is not improbable that this beautiful insect may be an extraordinary variety only of the foregoing species: the posterior wings are, however, less denticulated.

Taken at Birch-wood in July.

Sp. 15. *sublunaria*. PLATE 28. f. 1.—*Alis eroso-dentatis, anticis basi post medium brunneis, strigis tribus fusciscentibus, posticis rufescentibus fasciâ fuscâ, omnibus lunulâ parvâ albidâ.* (Exp. alar. 1 unc. 6—8 lin.)

Ge. *sublunaria*. *Steph. Catal. part ii. p. 120. No. 6473.*

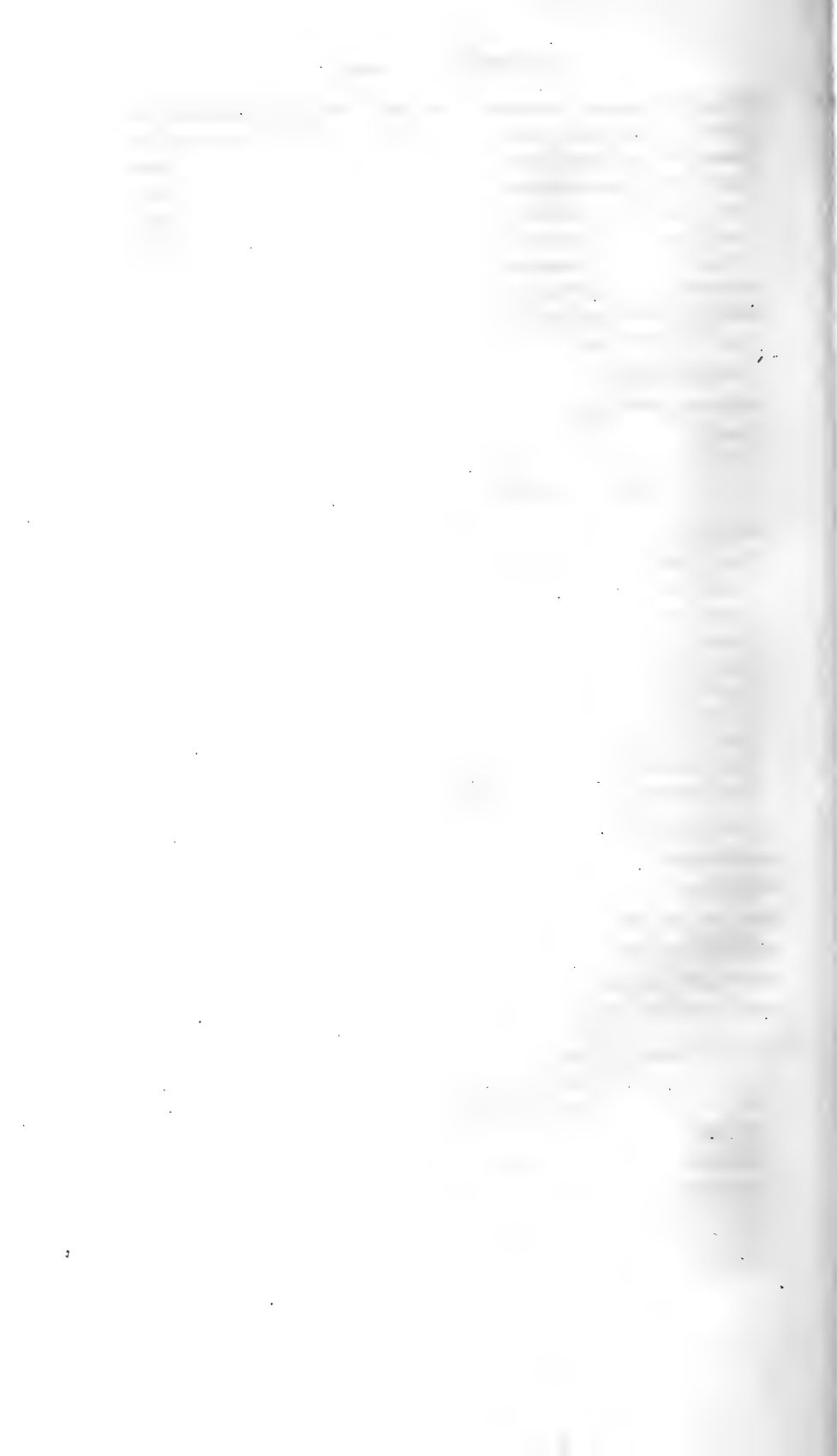
Wings, especially the posterior, deeply dentate, the anterior above, from the base to behind the middle, red-brown, with three obsolete fuscous strigæ, one very much incurved towards the base, a second irregularly angulated one in the middle, and a third, slightly flexuous, beyond; the space from thence to the hinder margin purplish-white, the margin darker, the apex with a bright-reddish lunular spot; posterior rufescent, with a brownish fascia, attenuated towards the disc, and edged with dusky, in which is a small whitish lunule; the anterior wings have also a similar lunule towards the costa. Beneath all the wings are strigated as above, and at the base are of a rich reddish-purple, with a lunule before the middle, and a purplish-red spot at the apex of the anterior.

Of this beautiful species I have hitherto seen three examples only, all of which were captured about ten years since in Derbyshire.

Sp. 16. *illustraria*. PLATE 28. f. 2. *Alis basi post medium communiter brunneo cinereoque variis, lunulâ albidâ, limbo albido-purpurascente, apice brunneo.* (Exp. alar. 1 unc. 8 lin.—2 unc. 1 lin.)

Ge. *illustraria*. *Hübner.—Steph. Catal. part ii. p. 120. No. 6474. Albin, pl. xlii. f. 69. e—h.*





Wings above from the base to behind the middle reddish-brown, varied with cinereous, with a white lunule in the centre of the disc of the posterior and towards the costa of the anterior; near the base is an obscure incurved darker striga; the hinder portion is purplish-white, with a bright red-brown lunular mark at the apex; the hinder margin rather dusky, angulated and obsoletely denticulated: posterior slightly denticulated, the same as the anterior behind the middle, with a brown spot: beneath somewhat similar markings, but elegantly varied with luteous and purplish shades.

Caterpillar brown or reddish, with whitish stripes on the sides, and brownish spots; it feeds on oak, &c.: the imago appears in June.

Rare: found in the vicinity of Birch-wood, and in other places within the metropolitan district: also, I believe, in the New Forest.

GENUS CLXXVI.—PERICALLIA * *mili*.

Palpi rather short, parallel, acute, the base pilose, the apex scaly, triarticulate, the two basal joints somewhat robust, the second longest, terminal minute, subglobose: *maxillæ* rather short. *Antennæ* bipectinated to the apex in both sexes, the pectinations shortest in the females: *head* small: *thorax* moderately stout, pilose: *abdomen* slender, with a tuft at the apex, in the males; somewhat robust, carinated, and obtuse in the females: *wings* deflexed during repose; anterior retuse, emarginate, the costa a little flexuous; posterior rounded, irregularly emarginated: *legs* short; *tibiæ* stout, subclavate. Larva with 10 legs, attenuated in front, with two tubercles on the fourth segment, and two recurved hooks, on the eighth; head small, slightly notched: pupa short and stout; changes amongst leaves.

The genus *Pericallia* is notably distinguished from *Geometra* by the antennæ being pectinated in both sexes, by the wings being of dissimilar form, the palpi and legs shorter, and by the great disparity in the markings on the wings, which are of divers colours, with the posterior rounded, irregularly dentate, and the anterior retuse and slightly dentate:—the species affect gardens in preference to woods, and fly during the afternoon, rather sluggishly.

Sp. 1. *Syringaria*. *Alis omnibus griseo-flavescentibus, rubro-micantibus, strigis repandis fuscis albisque*. (Exp. alar. 1 unc. 6—8 lin.)

Ph. Ge. *Syringaria*. *Linné*.—*Don*. vi. pl. 181.—*Pe. Syringaria*. *Steph. Catal. part ii. p. 120. No. 6475*.

Anterior wings varied with luteous and griseous and tinted with purple, the costa with some purplish-white dashes; a little before the middle is a some-

* Περικαλλης, *perpulcher*.

what abbreviated angulated violaceous striga, and two others behind, common to all the wings, approximating towards the costa of the anterior; of these the first is brown, the second brown and violet, with some black spots on the posterior wings, towards the inner margin; towards the apex of the anterior wings is a violaceous lunule; posterior wings more griseous. Female larger, and of a paler hue.

Slightly variable in colour and in size.

Caterpillar black, and brown varied: it feeds on the privet, lilac, willow, jasmine, &c., and changes to a robust brown pupa:—the imago appears in June or July.

Not common: I found several examples in a garden at Ripley in July, 1827; and I have also taken specimens at Birch-wood and near Highgate. “Woodside.”—*T. C. Heysham, Esq.* “Allesley and Coleshill.”—*Rev. W. T. Bree.* “Epping.”—*Mr. Doubleday.* “In gardens at Swaffham Prior, Cambridgeshire.”—*Rev. L. Jenyns.* “Weston-on-the-green.”—*Rev. A. H. Matthews.*

GENUS CLXXVII.—*ANGERONA*, *Duponchel.*

Palpi very short, slender, remote, triarticulate, the basal joint considerably longer than the other two united, the second short, subglobose, the terminal minute: *maxillæ* elongate. *Antennæ* rather strongly bipectinated in the males, excepting the five or six apical joints, which are serrate; simple in the females: *head* subglobose, small: *thorax* narrow, slightly velvety: *wings* during repose with the anterior covering the posterior, the former with the hinder margin rounded, entire, the latter rounded and irregularly emarginate. Larva with 10 legs, attenuated in front; head small, prominent; the fourth and eighth segments tuberculated: pupa formed in a slight web amongst leaves.

Angerona, which has been associated by different writers with *Geometra* and *Hipparchus*, differs from both: from the former in the form of the wings, the anterior being entire, and the posterior rounded and irregularly denticulated; and from the latter also by its dissimilar wings, and by the diversity in their colour and in the metamorphosis.

Sp. 1. *Prunaria*. *Alis in mare aurantiacis, in fæminâ flavis, fusco-pulverulentis, lunulâ omnium fusâ: margine postico interdum fusco.* (Exp. alar. ♂ 1 unc. 10 lin.—♀ 2 unc. — 2 unc. 2 lin.)

Ph. Ge. *Prunaria*. *Linné.*—*N. G. Prunaria*. *Steph. Catal. part ii. p. 120. No. 6476.*—*Don. ix. pl. 293. f. 3. var.*

Male with all the wings bright orange, thickly freckled with fuscous, and a

lunular spot of the same hue in the middle: cilia interrupted with fuscous spots, darkest on the posterior wings. Female pale luteous-yellow, freckled and marked as in the male.

One of the most variable insects of this family: sometimes the wings in the male are pale luteous, freckled with fuscous, with or without the fuscous spots on the cilia, and in rare instances without the freckles or lunule: at others the apex of the anterior and the hinder margin of the posterior are more or less lightly bordered with fuscous; and I possess one example with the anterior wings bright fulvous and the posterior pale yellow. The female also varies in being of a paler or brighter yellow.

In other instances the base and hinder margin of all the wings are fuscous, and the centre orange or yellow, according to the sex, with a fuscous lunule, and generally more or less freckled, very rarely immaculate. In this series of varieties the fuscous hinder margin is occasionally more or less interrupted with fulvous or yellow; and the cilia are sometimes spotted, at others immaculate; and the posterior wings are in some cases entirely fuscous.

Caterpillar ferruginous, or brown, with lighter spots on the sides, the head and tubercles reddish:—it feeds on various plants, such as the elm, sloe, white-thorn, nut, broom, lilac, &c.; and the imago appears towards the end of June.

Very common in woods and bushy lanes throughout the metropolitan district. “Westmoreland.”—*W. C. Hewitson, Esq.* “Kenilworth, Hay-wood, &c.”—*Rev. W. T. Brce.* “Epping.”—*Mr. Doubleday.* “Weston-on-the-green.”—*Rev. A. H. Matthews.*

GENUS CLXXVIII.—RUMIA, *Duponchel.*

Palpi short, rather incurved, very squamous, triarticulate, the basal joint rather stout, bent, second longer, curved outwards, and slightly attenuated, terminal small, ovate-conic: *maxilla* long, incrassated at the base. *Antennæ* simple in both sexes, a little incrassated, and obscurely serrated in the males within: *head* small: *thorax* slender, rather woolly: *wings* partially expanded during repose, anterior entire, posterior obtusely angular in the middle; *abdomen* slender, carinated down the back, rather stouter in the female. Larva with 14 legs, elongate, cylindrical; head round; two prominent tubercles on the sixth segment, the sides posteriorly a little corrugated: pupa slender; formed in a slight web amongst leaves.

In this genus both sexes have simple antennæ, though it is evident from the metamorphosis that it is closely allied to this group of the Geometridæ: the wings are entire, with the posterior slightly angulated in the middle of the hinder margin; they are of bright yellow tints, with dark clouds disposed in irregular strigæ and dissimilar costal spots: the larva has 14 legs.

Sp. 1. *Cratægata*. *Alis præsulphureis, antice maculis quatuor costalibus, aut costâ ipsissimâ, ferrugineis, maculâque mediâ subargenteâ.* (Exp. alar. 1 unc. 2—8 lin.)

Ph. Ge. *Cratægata*. *Linné.—Wilkes, pl. 39. f. 80.—N. G. Cratægata. Steph. Catal. part ii. p. 121. No. 6477.*

Of a deep-bright sulphur, with the base of the antennæ, lower part of the forehead, and joints of the legs ferruginous; the anterior wings generally with rather obscure fuscous clouds disposed in strigæ, and about four rufo-ferruginous spots on the costa, the first oblong at the base, the second smaller towards the middle, the third larger in the middle, and the fourth at the apex, very large and elongate-conic; adjoining the third is a silvery spot, margined with brown, and externally tridenticulate; posterior wings with a central fuscous spot, and one or more strigæ composed of obsolete fuscous clouds: cilia of all sometimes immaculate, at others spotted with dull ferruginous.

Variable: the fuscous clouds on the wings are more or less obliterated, and sometimes totally wanting; the ferruginous costal spots are occasionally nearly obliterated; and in some rare instances the costa is entirely from the base to the apex deep dull ferruginous: and I possess one remarkably large example of the female with the body and wings entirely of a bright pale white, barely tinted with sulphureous, with the markings as usual, but bolder.

Caterpillar pale fuscous, with a bluish spot on each side behind the head, and the tubercles on the sixth segment slightly tinted with reddish:—it feeds chiefly on the whitethorn, and on the sloe, apples, &c.:—the imago appears three or four times in the year, about the beginning of April, June, August, and October.

Abundant throughout the metropolitan district. “Pretty common in the hedges about Carlisle.”—*T. C. Heysham, Esq.* “Epping.”—*Mr. Doubleday.* “Dublin.”—*N. A. Vigors, Esq.* “Newcastle, &c.; abundant.”—*G. Wailes, Esq.* “Weston-on-the-green.”—*Rev. A. H. Matthews.*—“Edinburgh, abundantly.”—*Rev. W. Little.*

GENUS CLXXIX.—OURAPTERYX, *Leach.*

Palpi very short, slightly ascending, squamous, triarticulate, the basal joint very pilose, rather stouter than the second, and curved, the second about half the length of the preceding, elongate, ovate, third minute, subglobose: *maxillæ* nearly as long as the antennæ. *Antennæ* simple in both sexes, stoutest and obscurely pubescent within in the males: *head* small; *forehead* broad, densely pilose: *thorax* rather stout, velvety; beneath rather woolly: *wings* partly expanded during repose; anterior entire, subfalcate; posterior with the middle of the hinder margin truncate-caudate: *abdomen* slender, stouter in the females: *legs* moderate; posterior *tibiæ* somewhat compressed, armed with short spurs. Larvæ with 10 legs, very long, cylindric, attenuated in front,

the hinder segments somewhat knobbed : pupa very elongate, slender, enclosed in a slight web amongst leaves.

This conspicuous genus has also simple antennæ in both sexes, but here again the metamorphosis resembles that of the true *Geometra* : the imago may be readily known by the elongate tail-like process in the middle of the hinder angle of the posterior wings, as well as by the flavescent hue by which all the wings are tinted.

Sp. 1. *Sambucaria*. *Alis flavescentibus, anticis strigis duabus, lineolâ interjectâ, obscurioribus, posticis apice bipunctatis.* (Exp. alar. 2 unc. 3—6 lin.)

Ph. Ge. *Sambucaria*. *Linné.*—Ou. *Sambucaria*. *Leach, Z. M. i. pl. 35. f. 2.—Steph. Catal. part ii. p. 121. No. 6478.*

Pale-yellowish ; wings with obscure transverse scattered evanescent streaks, particularly on the hinder margin ; the anterior with two darker flavescent strigæ, between which is a distinct streak towards the costa : posterior with one striga, placed very obliquely, and extending nearly to the inner angle, and near the angle in the hinder margin a large black spot, with a rufous pupil ; and nearly adjoining, towards the inner margin, a smaller, elongate, simple black dot : cilia pale rufous, or flavescent.

Caterpillar of a dull reddish-brown, with darker lines : it feeds on the elder, willow, lime, &c. :—the pupa is elongate, brown, with darker dots : it changes towards the end of June or beginning of July.

Not very uncommon in woods and gardens, flying very rapidly both early and late in the evening, throughout the metropolitan district, especially in the vicinity of Ripley. “York.”—*W. C. Hewitson, Esq.* “Epping.”—*Mr. Doubleday.* “Newcastle, Melton-park, Keswick, &c.”—*G. Wailes, Esq.* “Bottisham, and near Ely.”—*Rev. L. Jenyns.* “Weston-on-the-green.”—*Rev. A. H. Matthews.*

GENUS CLXXX.—CAMPÆA, *Lamarck.*

Palpi very short, slender, ascending, squamous, the basal joint slightly robust, short, second longer, a little bent at the base, terminal minute, ovate-acuminate : *maxillæ* long. *Antennæ* slightly bipectinated to the apex in the males, the pectinations shortest towards the tip, simple in the females : *head* small : *thorax* slender, velvety : *wings* during repose partially expanded ; the hinder margin of all angular ; the anterior with two transverse strigæ, the posterior with one, exactly corresponding with the hinder one on the anterior : *abdomen* slender, carinated, stouter in the females. Larva with 12 legs, elongate, flattened beneath ; head obtuse, rounded, terminal segment with two tuber-

cles: pupa elongate, enclosed in a slight folliculus amongst leaves, on the ground.

The name *Campæa* was proposed by Lamarck in 1818 to designate *Geo. margaritaria*, and other insects, whose larva possess 12 legs only; and as the species above-named forms the type, it is necessary to employ Lamarck's name, the term *Metrocampa* not being proposed by Latreille till 1825: the only indigenous species, there being two found in France, may be known by its large size, beautiful greenish pearly hue, and by the hinder margins of all the wings being angulated in the middle; the other French species is reddish, and the second species of *Ellopiæ* light green, therefore the ground colour of the wings is evidently of less importance as a secondary character in distinguishing genera than the outline and the disposition of the markings, but in these instances it must be borne in mind that green is the spectral tint of red.

Sp. 1. *margaritata*. *Alis margaritaceis, anticis apice puncto rubro, strigisque duabus albidis, posticis unâ.* (Exp. alar. 1 unc. 7 lin. — 2 unc.)

Ph. *Geo. margaritata*. *Linné.—Don. xvi. pl. 543.—Ph. margaritaria. Steph. Catal. part ii. p. 121. No. 6479.*

Of a pearly white, tinged with green: the anterior wings with two transverse whitish strigæ, the first straight and placed obliquely, the other slightly flexuous, the former bordered with a darker shade of greenish without, and the latter within; at the apex, on the hinder margin, is a small rufous spot: posterior wings with a single whitish striga, bordered within with a darker shade of greenish; cilia of all pearly white.

Caterpillar variegated with greenish and brown, with whitish spots on the back and sides, and black streaks and dots beneath: it feeds on the oak, hornbeam, &c.; and the imago appears about the middle of July or the beginning of August.

Not uncommon in woods and bushy lanes in the vicinity of London. "York, &c."—*W. C. Hewitson, Esq.* "Davidson's-bank, Rockcliff, &c."—*T. C. Heysham, Esq.* "Epping."—*Mr. Doubleday.* "Meldon-park."—*G. Wailes, Esq.* "Bottisham and Ely."—*Rev. L. Jenyns.* "Weston-on-the-green."—*Rev. A. H. Matthews.*

GENUS CLXXXI.—ELLOPIA, *Treitschke.*

Palpi very short, slender, ascending, pilose at the base, triarticulate; the basal joint rather stout, curved; second gracile, shorter, subcylindric; third minute,

subglobose, obtuse: *maxillæ* elongate. *Antennæ* bipectinated to the apex in the males, the pectinations slender and elongate, but decreasing gradually in length towards the base and apex; simple, but pubescent within, in the females: *head* small, rather broad: *thorax* slender, velvety: *wings* slightly expanded during repose, the hinder margins of all rounded, but of the posterior obscurely sinuated towards the apex; the anterior with two strigæ, the posterior with one, corresponding with the hinder one on the anterior: *abdomen* slender, carinated above, stouter in the females. Larva with 12 legs, slightly hairy, elongate, flattened beneath; head obtuse: pupa enclosed in a delicate web amongst leaves.

The rounded wings of this genus, united to their dissimilar texture and hue, the discrepancy in the form and structure of the palpi, and the diversity of the larva, sufficiently indicate the prominent characters of this genus; which I have named as above, from its being a section of Treitschke's genus *Ellopia*, in order to prevent the adoption of a new term.

Sp. 1. *fasciaria*. *Alis rufis, anticis fasciâ mediâ saturatiori strigæ albidæ utrique adnata.* (Exp. alar. 1 unc. 5—7 lin.)

Ph. Ge. *fasciaria*. *Linné.*—*El. fasciaria*. *Steph. Catal. part ii. p. 122. No. 6480.*

Clear rufous, the anterior wings with a broad angular central band, bordered on each side with whitish: posterior with a single whitish curved striga, forming, as it were, a continuation of the hinder margin of the fascia of the anterior, the inner edge bordered with a darker red than the rest of the wings: crown of the head and shafts of the *antennæ* whitish. Female rather larger and paler, without the darker shade between the strigæ on the anterior wings.

The form of the band on the anterior wings varies slightly, the sides being sometimes parallel to each other, at other times both indented.

Caterpillar rufous, varied with fuscous and white, with the head red: it feeds on the pine:—the imago appears about the middle or end of June.

Not common: I have occasionally taken a specimen or two in the fir plantation at Birch-wood, and in 1827 I found two in a similar situation near Ripley. "Great Orton."—*T. C. Heysham, Esq.* "Flisk, N. B."—*Rev. J. Fleming.*

GENUS CLXXXII.—HIPPARCHUS, *Leach.*

Palpi distinct, porrected, hairy, approximating at the apex like a beak; the terminal joint exposed, very distinct, triarticulate; the basal joint short, slightly robust; second elongate, attenuated; apical lanceolate: *maxillæ* rather short, concealed between the palpi. *Antennæ* moderately pectinated in the males, the pectinations incurved and vanishing towards the apex of the

antennæ; which is subserrate; simple in the females: head small: thorax narrow, slightly velvety: wings placed in a triangular position during repose; the anterior obscurely repanded, the posterior slightly denticulated on the hinder margin; all of a green hue, with lunular spots disposed in strigæ: abdomen slightly robust in both sexes, but stoutest in the female. Larva with 10 legs, short, cylindrical; head rounded; the middle segments tubercular: pupa formed in a transparent cocoon amongst leaves.

The type of the genus *Hipparchus* of Leach being *Ph. papilionaria*, and no other indigenous species agreeing therewith, it is necessary here to employ his name, being the first proposed and characterized:—the genus may be known by the large size of the insect, combined with its green tints and irregularly strigated wings, the integrity of the hinder margin of the anterior and regularly denticulated posterior ones;—the larva also differs by having the head round, and the body differently tuberculated.

Sp. 1. *Papilionarius*. *Viridis, alis strigis duabus communibus subposticis punctorum albidorum*. (Exp. alar. 2 unc. 2—6 lin.)

Ph. Ge. *Papilionaria*. *Linné*.—*Don*. viii. pl. 287. f. 1.—*Hi. Papilionarius*. *Steph. Catal. part ii. p. 122. No. 6481*.

Deep grass-green; the anterior wings with two, or three, transverse strigæ, composed of whitish lunular spots, the two hinder of which always exist, and are carried on through the posterior wings behind the middle; towards the middle of the costa of the anterior wings, and on the disc of the posterior, is a darker green lunule: the antennæ are reddish-white, with the radii in the male of a brighter red.

Caterpillar green, with a yellowish lateral line and red tubercles on the back: it feeds on the lime, birch, alder, hazel, &c.:—the pupa is brownish, with yellowish-green spots: the imago is produced about the middle of July.

Not very common: I have taken it occasionally at Darent-wood, and once in a lane near Birch-wood I saw many dozens of the wings, several in fine condition, strewed about under an old oak. "Woods near Newbiggin, Rockcliff, &c."—*T. C. Heysham, Esq.* "York, rarely."—*W. C. Hewitson, Esq.* "Allesley and Coles-hill."—*Rev. W. T. Bree*. "Keswick."—*G. Wailes, Esq.* "Weston-on-the-green."—*Rev. A. H. Matthews*. "Waldershare, Kent."—*Miss Harvey*.

GENUS CLXXXIII.—HEMITHEA, *Duponchel*.

Palpi slender, short, scaly, remote, triarticulate; the basal joint stouter and rather shorter than the second, which is curved at the base and attenuated; terminal minute, subglobose: *maxillæ* exposed, short, slender. *Antennæ*

slightly bipectinated in the males, the pectinations ciliated and vanishing towards the apex of the antennæ, which is subserrate; simple in the females: *head* broad: *thorax* slender, slightly velvety: *wings* placed in a triangle during repose, entire; anterior with the apical angle acute, posterior sometimes with the hinder margin slightly angulated in the middle: *abdomen* slender, crested or carinated down the back: rather stoutest in the females. Larva with 10 legs, smooth, elongated; head deeply bifurcate, anterior margin of the first segment with one or more points projecting forwards: pupa placed in a slight web amongst leaves.

Hemithea, like the preceding genus, is characterized amongst other particulars by the virescent tints which adorn the wings and body: the former are generally transversely striped with paler lines or darker flexuous stripes: the larvæ have the head cleft, as it were, in front, with the anterior segments more or less spinous or tuberculated.

A. With the hinder margin of the posterior wings slightly angular.

Sp. 1. *vernaria*. *Alis omninò late viridibus, strigâ subincurvâ ante secundâque pone medium subcommuni, ciliisque, albis.* (Exp. alar. 1 unc. 3—5 lin.)

Ph. Ge. *vernaria*. Linné.—Ph. Ge. *lucidata*. Don. iii. pl. 97.—Hip. *vernarius*. Steph. Catal. part ii. p. 122. No. 6482.

Of a beautiful clear pale green, sometimes tinted with bluish, the anterior wings with an incurved striga at the base, a slightly repanded one behind the middle, and the cilia white; posterior with a single somewhat flexuous striga behind the middle, and the cilia also white; forehead above and antennæ white, lower part of front and legs reddish.

Caterpillar green, with two reddish spines on the head, a pale-green line on the back, and a delicate white stripe on the sides: it feeds on the oak, sloe, traveller's joy (*Clematis vitalba*), &c.: it changes in a delicate web into a brownish pupa:—the imago appears towards the end of July.

In general very rare; but in the year 1819 I was at Darentwood with some friends in the middle of July, and we captured upwards of 100 specimens in the course of a very short period; since which time I have met with but one other example, which I took in fine condition, in a garden at Ripley, in July, 1827.

B. With the hinder margin of the posterior wings rounded.

† Sp. 2. *Smaragdaria*. *Alis viridibus, anticis strigis duabus punctoque medio albis.* (Exp. alar. 1 unc. 5 lin.)

Ge. *Smaragdaria*. Fabricius.—Hip. *Smaragdarius*. Curtis, vii. pl. 300.

“Green: antennæ whitish, underside and palpi ochraceous: eyes blackish: thorax with the anterior scales margined with ochre, superior wings with the costa

of the same colour, two sinuated pale-ochraceous strigæ, one before, the other beyond, the middle, between which is a whitish spot: abdomen, upper portion of the inferior wings, and the extremity of the cilia whitish: legs yellowish-white, thighs green, anterior tibiæ subferruginous on the inside, underside with the outer striga continued round the inferior wings, in the disc of which is a whitish spot, as in the superior wings.”—*Curtis, l. c.*

I have never seen a specimen of this apparently beautiful insect, which is introduced as British from the work last quoted; having been taken in the larva state near “Southchurch, Essex, and the moth produced on the 30th June, 1826.”—*Curtis, l. c.*

Sp. 3. *Cythisaria*. *Alis viridibus, strigis duabus flexuosis lunulâque interjectâ, saturatioribus, tertîâque versus marginem posticum albicante.* (Exp. alar. 1 unc. 5—6 lin.)

Ge. *Cythisaria*. *Wien. Verz.*—*Hip. Cythisaria*.—*Steph. Catal. part ii. p. 123. No. 6485. Wilkes, pl. 75.*

Of a delicate pale green—from age inclining to a pale ashy hue, and sometimes nearly white: anterior wings with an incurved, darker green, flexuous striga before the middle, and a second, more flexuous, behind, and between them a lunular dark line; towards the hinder margin a third whitish undulated striga; posterior wings with a single dark striga behind the middle, and a pale one towards the hinder margin: cilia of all the wings pale.

Caterpillar green, with a pale lateral line:—it feeds on the broom (*Spartium Scoparium*), *Geniata tinctoria*, and *G. pilosa*, &c.: the pupa is slender, yellowish-green:—the imago appears towards the end of July.

Common on some of the heaths, &c., near London; especially on the green near Ripley, and on the warren at Coombe-wood. “Cobble-hall, Durdan, &c.”—*T. C. Heysham, Esq.* “Epping.”—*Mr. Doubleday.*

GENUS CLXXXIV.—CLEORA.

Palpi rather conspicuous, porrected obliquely, thickly clothed with scales, the terminal joint concealed; triarticulate, the basal longer than the second, curved upwards near the base, and rather thickened at the apex; second filiform, truncate; third minute, oval: *maxillæ* nearly as long as the antennæ. *Antennæ* rather long, bipectinated about three-fourths of the length in the males, simple at the apex and in the females, but slightly pubescent within: *head* small: *thorax* slender, squamous, with an obscure crest behind: *wings* partially extended during repose, anterior entire, posterior with the hinder margin slightly indented: *abdomen* slender, with a tuft at the apex in the males, stouter and very acute at the tip in the females. Larva with 10 legs, elongate, slightly tubercular: pupa in a folliculus amongst leaves.

The transition from the last genus to *Alcis* is most beautifully preserved through the medium of this genus, of which *Cl. cinctaria* is the type, though there is some discrepancy between the species in general habit; the first, which Duponchel associates with *Hipparchus*, differing in being almost entirely of a rich green, with large blotches of a pale hue, and not, as in the other species, transversely strigulated with black lines or dots, by which secondary character they may be known from all the foregoing insects, excepting the *Fidoniæ*, from which their indented posterior wings remove them:—nearly all the species in their larva state subsist upon lichens.

A. Wings green, with pale strigæ and spots.

Sp. 1. *bajularia*. *Alis viridissimis, maculâ angulî ani rufo-albâ, sesquialterâ marginis tenuioris.* (Exp. alar. 1 unc. 1— $3\frac{1}{2}$ lin.)

Ge. *bajularia*. *Wien. Verz.*—*Cl. bajularia*. *Steph. Catal. part ii. p. 123. No. 6486.* *Ph. ditaria*.—*Don. vi. pl. 202. f. 1.*

Anterior wings bright green, with two waved and somewhat angulated whitish transverse strigæ, one before, the other behind, the middle, and a large blotch of reddish-white, palest at the edges, at the inner angle; posterior with a similar blotch at the anal angle, and one or two others towards the apex of the hinder margin; cilia whitish spotted with brown, with an undulated fuscous striga on the margin of the wings: antennæ and forehead whitish.

Caterpillar griseous, said to be covered with small leaves and scales:—it feeds on the oak:—the imago appears about the beginning of July.

Not very common: I have taken a few specimens at Darenth and Birch Woods; and in July, 1827, I met with a single example at Ripley: it, however, occurs in other places. “*Weston-on-the-green.*”—*Rev. A. H. Matthews.*

B. Wings more or less strigulated with black.

Sp. 2. *Lichenaria*. *Alis viridi cinereoque variis, atomosis, strigâ anticâ subincurvâ alterâque communi posticâ prærepandâ denticulatâque nigris.* (Exp. alar. 1 unc. 3—5 lin.)

Ge. *Lichenaria*. *Wien. Verz.*—*Don. x. pl. 342. f. 1.* *Cl. Lichenaria*.—*Steph. Catal. part ii. p. 123. No. 6487.*

Wings varied with green and cinereous, with dusky irrorations: the anterior with a somewhat incurved black striga near the base, and a second, very much repanded and strongly denticulated, towards the hinder margin: posterior wings with a single denticulated striga a little behind the middle: and on the hinder margin of all a slender denticulated line at the base of the cilia, the latter greenish interrupted with black.

Somewhat variable in colour; sometimes a little varied with yellow: occasionally of a pale hue, or very dark: the strigæ are also more or less remote.

Caterpillar rough, greenish or cinereous, varied with luteous, with the sides spotted with black, and the anterior legs with a dark spot: it varies according to its food, which consists of different kinds of lichen, especially the *Li. omphalodes*:—the imago appears towards the end of July.

Not uncommon in the larva state at Coombe-wood on old oaks: also in profusion near Brockenhurst in the New Forest. “Épping.”—*Mr. Doubleday*. “Orton Moss.”—*T. C. Heysham, Esq.* “Swaffham Prior, and near Ely.”—*Rev. L. Jenyns*. “Weston-on-the-green.”—*Rev. A. H. Matthews*.

Sp. 3. *viduaria*. PLATE 30. f. 2. *Alis albis, nigro-irroratis, anticis puncto strigisque tribus dentatis nigris.* (Exp. alar. 1 unc. 4—6 lin.)

Ge. *viduaria*. *Wien. Verz.*—Cl. *viduaria*. *Steph. Catal. part ii. p. 123. No. 6488.*

White, irrorated with black; anterior wings with three somewhat confused black strigæ; the first towards the base, incurved; the second, about the middle, broader, and surrounded by a lighter cloud; the third flexuous behind the middle, between the two last is a black spot, and towards the apex on the costa is another, from which an obsolete undulated striga sometimes arises: on the hinder margin is a row of black lunules: cilia white, interrupted with fuscous: posterior wings irrorated with fuscous, with a large central spot, and two others on the inner margin, the hinder margin with a fine undulated black line; cilia immaculate.

All the examples I have seen of this beautiful species were captured in the New Forest: the first about June, 1822, the remainder in 1825 and 1826: I believe in the vicinity of Lyndhurst.

Sp. 4. *teneraria*. *Alis albis, fusco-adspersis, strigis obsoletis maculisque fuscis.* (Exp. alar. 1 unc. 2—4 lin.)

Ge. *teneraria*. *Hübner*.—Cl. *teneraria*. *Steph. Catal. part ii. p. 123. No. 6489.*

Ashy-white: anterior wings with four equidistant fuscous spots on the costa, whence arise an equal number of obsolete strigæ, of which the first is towards the base and incurved, the third flexuous, and the hinder one waved and bordered externally with whitish; towards the apex on the hinder margin is a black patch, and in the centre of the wing a black spot; cilia clouded with fuscous: posterior wings with a central fuscous dot and an obscure transverse striga, the hinder margin with an undulated black line; cilia white.

The hinder margin of the anterior wings is sometimes clouded entirely with black, with a distinct whitish undulated striga.

The caterpillar feeds on the Lichen *omphalodes*, and the imago appears in June or the beginning of July.

Rare, but very widely distributed: the greatest number of spe-

cimen known were taken in the New Forest. "Near Ashburton."—*Dr. Leach*. "Dalmeny, near Edinburgh."—*Rev. W. Little*.

Sp. 5. *cinctaria*. *Alis cinereis, fusco-irroratis, fasciâ baseos et disco maculisque fuscis*. (Exp. alar. 1 unc. 6—8 lin.)

Ge. *cinctaria*. *Wien. Verz.*—Cl. *cinctaria*. *Curtis, ii. pl. 88.*—*Steph. Catal. part ii. p. 123. No. 6490.*

Cinereous, variegated with ochraceous, and more or less thickly irrorated with fuscous; near the base a transverse curved fuscous or black fascia, with a pale striga between; behind the middle an indented one; between them is an oval, or lunular, ring; towards the hinder margin an undulated pale striga, the margin itself more or less clouded with dark fuscous: posterior wings paler, with a lunular ring in the centre, with several transverse sinuated lines, the interior of which are black-edged externally with pale cinereous, the outer one entirely pale cinereous; on the hinder margin of all the wings is an interrupted row of small lunular spots: abdomen whitish at the base, frequently with a black line behind it.

Extremely variable: in some instances the wings are nearly of an uniform fuscous hue, with three transverse strigæ scarcely visible; while in others they are very pale, with the strigæ very broad and black, forming distinct fasciæ across the wings;—the ocellar spot in the disc is occasionally wanting.

Not very rare, but local, in the New Forest, whence I have seen upwards of fifty examples, which I believe chiefly occurred in the vicinity of Lyndhurst and Brockenhurst, in May and June.

Sp. 6. *pictaria*. *Alis cinereis, anticis strigis duabus undatis punctoque interjecto atro, posticis pallidioribus*. (Exp. alar. ♀ 1 unc. 1½ lin.)

Ge. *pictaria*. *Thunberg.*—Cl. *pictaria*. *Steph. Catal. part ii. p. 123. No. 6491.*

Cinereous; anterior wings irrorated with fuscous, with a waved curved striga towards the base, and a second considerably undulated one behind the middle of a darker hue, with a distinct rounded spot between them, towards the costa: the posterior wings paler, with an obscure waved striga a little behind the middle, and thickly irrorated with fuscous on the inner margin: all the wings have a row of distinct minute black dots on the hinder margin at the base of the cilia, which are cinereous: antennæ reddish; body with a row of white spots down the back.

This insect (of which two females only have hitherto been taken in Britain to my knowledge) seems to depart from the rest of the genus, but until the male is discovered it is not easy to assign a better location for it: in some respects it approaches to the *Fidonia cineraria*, but differs from that in form:—it is not without reluctance that I associate the insect in this genus, as, from being a warm advocate for placing discordant species in genera by themselves, it appears ridiculous to incumber nearly every genus, as is too frequently the case with some writers, with such species—a proceeding that, far from advancing knowledge, most clearly leads to error and confusion.

Of this insect I have as yet seen but two examples of the female, both of which were captured between Eltham and Birch-wood in the spring of two successive years.

GENUS CLXXXV.—ALCIS, *Curtis*.

Palpi porrected, squamous, terminal joint slightly exposed; triarticulate; the two basal joints nearly equal, rather long and slightly curved, the terminal minute, ovate: *maxillæ* moderately long. *Antennæ* bipectinated in the males, excepting some of the terminal joints, which are simple; simple, but pubescent within, in the females: *head* small: *eyes* large: *thorax* slender, squamous: *wings* extended horizontally during repose; anterior entire, posterior indented: *abdomen* long, with a truncated tuft at the apex in the males, shorter and stouter, with the apex acute, in the females: *legs* slender; posterior with a tuft of hair at the base. Larva smooth, cylindrical, with a slight swelling on the fourth segment, the head nearly concealed by the first segment: pupa in a subterraneous web.

The insects of this genus are mostly distinguished for their great size, plain cinerascens or griseous colours, with transverse dusky or black lines and dots disposed in strigæ on the wings, and frequently clouded with brown or darker hues; the anterior wings are entire on the hinder margin, as in the foregoing genus, and the posterior regularly emarginated or indented: the males, as in several other genera, are in some instances distinguished by having a silky tuft of hairs attached to the base of the posterior tibiæ, which have a longitudinal groove within to receive it.

Sp. 1. repandata. *Alis omnibus fusco griseoque cinereis nebulosis, strigâ communi repandâ nigrâ, aliâque posticâ albâ intus fuscâ.* (Exp. alar. 1 unc. 9 lin.—2 unc.)

Ph. Ge. repandata. *Linné*.—*Don*. x. 21. pl. 333. f. 1.—*Al. repandaria*. *Steph. Catal. part ii. p. 124. No. 6492.*

All the wings cinereous, clouded with fuscous and griseous, and more or less irrorated with dusky, anterior with an obsolete slightly repanded dusky striga towards the base, and a second more distinct and more repanded behind the middle, and between these a dusky spot, which is sometimes ocellar; towards the hinder margin is a dentate repanded white striga, bordered within with fuscous, and on the hinder margin is a series of lunular spots: cilia griseous clouded with fuscous; posterior wings paler, with a fuscous striga behind the middle, edged exteriorly with whitish, and a whitish undulated striga near the hinder margin, which latter has a row of united lunular black spots: cilia griseous.

Extremely variable in colour and in the intensity of its markings: in some instances the strigæ are nearly obliterated; at others they are remarkably distinct, black, and somewhat fasciæform; and in the exterior angle of the second repanded striga is frequently a quadrate dark spot.

Caterpillar ashy-gray, with a darker line on the back and paler spots, and some black dashes: it feeds on the poplar, birch, &c.:—the imago appears towards the middle or end of July.

Not uncommon in woods and forests in most parts of the kingdom, especially in the New Forest.—“York, Newcastle.”—*W. C. Hewitson, Esq.* “Baron-wood, Armathwaite.”—*T. C. Heysham, Esq.* “Epping.”—*Mr. Doubleday.* “Weston-on-the-green.”—*Rev. A. H. Matthews.*

Sp. 2. *destrigaria*. *Alis omnibus griseo-cinereis præatomosis nebulosis, strigâ communi posticâ repandâ albâ, intus cinereâ.* (Exp. alar. 1 unc. 11 lin.)

Ge. *destrigaria*. *Haworth.*—Al. *destrigaria*. *Steph. Catal. part ii. p. 124. No. 6493.*

Pale griseous-ash, rather thickly irrorated with fuscous, and clouded with the same, with a white repanded undulated striga on both wings, towards the posterior margin, bordered within with cinereous.

Differs from the preceding by being paler, more thickly irrorated with fuscous, and by wanting the fuscous strigæ in the middle of the wings: it may probably be a mere variety of the former.

Found near London in woods in July.

Sp. 3. *muraria*. *Cinereo-fuscis, atomis innumeris strigisque obscuris saturatioribus.* (Exp. alar. 1 unc. 8—9 lin.)

Al. *muraria*. *Curtis.*—*Steph. Catal. part ii. p. 124. No. 6494.*

Of an uniform gray-brown, very thickly sprinkled throughout with fuscous, with two very obsolete and one rather distinct darker strigæ on the anterior wings, the latter a little beyond the middle; and two on the posterior more evident towards the inner margin: there is also a very faint pale flexuous striga near the hinder margin, and on the extreme edge of the latter is an interrupted black line.

Specimens vary a little in colour, but all are of a more uniform colour, with the markings less evident, and of smaller size than either of the foregoing specimens.

Taken in the north of England and in Scotland on old walls, not uncommonly.

Sp. 4. *conversaria*. *Alis cinereo-griseis, fusco-atomosis, fasciâ latâ communi nigricante obtusè biangulatâ.* (Exp. alar. 1 unc. 10—11 lin.)

Ge. *conversaria*. *Hübner.*—*Entomological Transactions*, i. 328. pl. 9. f. 3.—

Al. *conversaria*. *Steph. Catal. part ii. p. 124. No. 6495.*

Griseous; wings somewhat cinereous, delicately sprinkled with minute fuscous

dots, the anterior with a broad central fascia, incurved within and bilobed without, and gradually attenuated towards the inner margin: this fascia is continued, as it were, on the posterior wings, its outer margin being waved: the hinder margin of all the wings is rufo-fuscescent, with a flexuous whitish striga within; and some lunular black streaks, sometimes united, on its extreme edge at the base of the cilia, the latter pale griseous-ash, with darker clouds.

Treitschke considers this insect to be a mere variety of *Al. repandaria*, but I cannot coincide with that opinion, from its rarity near London, and the frequency with which it occurs in the West of England and in Ireland.

Very rare near London; a single example only, so far as I am aware, having hitherto been captured within the metropolitan district, which was taken by my late friend, Mr. Blunt, in Darenth-wood, in July, 1819;—in Devonshire specimens have more frequently occurred, and also “near Dublin.”—*N. A. Vigors, Esq.* “Kimpton, in June.”—*Rev. G. T. Rudd.* “High Bickington, Devon.”—*T. Cocks, Esq.*

Sp. 5. *sericearia*. *Alis holosericeo-fuscis aut testaceis, atomis ochraceis strigisque nigris.* (Exp. alar. 1 unc. 10 lin.—2 unc.)

Al. sericearia. *Curtis, iii. pl. 113.—Steph. Catal. part ii. p. 124. No. 6496.*

Silky-brown or testaceous, irregularly sprinkled with ochraceous; anterior wings with the base very dark, an indented striga beyond the middle, and an obscure interrupted waved one near the posterior margin; on the disc towards the costa a transverse black spot; posterior wings rather paler, with the base fuscous; an obscure transverse line in the centre, beyond which is a waved transverse striga, dark within and pale without; the hinder margin irregularly speckled with elongate, united, ochraceous spots; the hinder margin itself of all the wings with a few black dots; cilia fuscous, interrupted with ochraceous.

All the examples of this beautiful species (which approaches closely to the *Boarmia Abietaria* of Duponchel) that have come beneath my notice were taken in July, 1826, in the New Forest, somewhere between Brockenhurst and Lyndhurst.

Sp. 6. *consortaria*. *Alis griseo-cinereis, atomis numerosis fuscis, strigis obsolete dentatis saturatioribus, posticis puncto ocellari albido.* (Exp. alar. 1 unc. 10 lin.—2 unc.)

Rh. consortaria. *Fabricius.—Don. x. pl. 333. f. 2.—Al. consortaria.* *Steph. Catal. part ii. p. 124. No. 6497.*

Pale griseous-ash, very thickly sprinkled throughout with minute fuscous dots, with three or four interrupted obsolete darker dentate strigæ, of which the one next behind the middle is generally the most conspicuous, and that towards the hinder margin is usually accompanied without with a whitish

undulated streak: on the hinder margin of all the wings are some more or less evident black conical spots, and on the disc of the posterior wings is a white spot edged with deep fuscous or black.

Varies slightly in colour, and in the intensity of the strigæ.

Caterpillar of a dirty brown-gray, with brighter stripes on the sides, and a delicate spotted line on the back: it feeds on various plants, especially the poplar, willow, honeysuckle, &c.:—the imago appears towards the middle of June.

Taken occasionally in Coombe, Birch, and Darent Woods, and in Epping and Hainault Forests, as well as in the neighbourhood of Brockenhurst.

Sp. 7. *Roboraria*. *Alis griseo-cinereis, atomis strigisque quatuor undatis subinterruptis fuscis, posticis lunulâ mediâ fuscâ.* (Exp. alar. ♂ 2 unc. 2—3 lin.: ♀ 2 unc. 3—6 lin.)

Ph. *Roboraria*. *Fabricius*.—*Don*. xv. pl. 527. *Al. Roboraria*. *Steph. Catal. part ii. p. 124. No. 6498.*

Pale griseous-ash, very thickly sprinkled with dark fuscous dots, the anterior wings with four somewhat equidistant and much interrupted fuscous strigæ, of which the two central ones are nearly united on the inner margin, and form a conspicuous dark blotch; the posterior wings have a fuscous lunule in the middle, and three or four fuscous strigæ, of which the one next behind the lunule is most distinct and strongly dentate; accompanying the hinder strigæ of all the wings is an undulated pale one, sometimes interrupted, and on the hinder margin are a few more or less distinct black spots.

Varies slightly in colour and in markings: in some individuals the strigæ are nearly obliterated, and the large dark patch on the inner margin of the anterior wings is wanting: amongst these varieties the *Al. piperitaria*, *Steph. Catal. l. c. No. 6499*, has a place.

Caterpillar griseous-brown, with an obscure dorsal line, each segment with a fuscous arch, and the three anterior with a yellowish spot: it feeds on the oak and beech:—the imago appears towards the end of June.

This magnificent insect has been several times caught in Birch and Coombe Woods, but it is evidently rare near London; in the New Forest and near Brighton it appears to be more abundant.

Sp. 8. *rhomboidaria*. *Alis subfuscis atomis nebulisque saturatioribus, strigis tribus subcommunibus nigris alterâque posticâ undulatâ albâ.* (Exp. alar. 1 unc. 10—11 lin.)

Ge. *rhomboidaria*. *Wien. Verz.*—*Al. rhomboidaria*. *Steph. Catal. part ii. p. 124. No. 6500.*

Subfuscous; the wings very thickly sprinkled with fuscous atoms, and slightly clouded with the same hue, with three nearly common black strigæ, of which the middle one is somewhat angular and most distinct, approximating on the inner margin towards the third, and forming a dark patch as in the foregoing

insect; beyond these is an undulated white striga, and on the hinder margin a fine black line, sometimes interrupted.

Extremely variable; in some instances the colour of the wings is of a bluish-ash, or lead-colour, with the strigæ and markings very obscure; at others they are slightly varied with cinereous and fuscous; and the strigæ are individually more or less obliterated or distinct.

Caterpillar yellowish-green, with a reddish head, a broad yellow lateral streak, and two fine blackish lines:—the imago appears towards the beginning of July, and frequents gardens and woody places.

Extremely common in gardens within the metropolitan district, frequenting even the centre of the metropolis itself. “Alderley, Cheshire.”—*Rev. E. Stanley*. “Epping.”—*Mr. Doubleday*. “Melton-park, Newcastle, &c.”—*G. Wailes, Esq.*

Sp. 9. consobrinaria. *Alis griseo-fuscis atomosis strigis communibus saturatioribus, alterâque posticâ ochraceo-albidâ.* (Exp. alar. 1 unc. 5—10 lin.)

Ge. consobrinaria. *Haworth*.—*Al. consobrinaria.* *Steph. Catal. part ii. p. 124. No. 6501.*

Of a griseous brown, sometimes tinged with ochraceous or pale ferruginous, sprinkled with fuscous, and with three very distinct darker strigæ as in the foregoing species, and another pale-ochraceous white waved one towards the hinder margin, which is sometimes nearly obsolete.

Varies much in colour, some examples being nearly as pale as *Al. consortaria*, others very dark, tinted with a rich ochraceous, and very strongly marked.

This insect is scarcely the *Geo. consobrinaria* of Hübner, which last appears rather to be synonymous with the *Boarmia Abietaria* of this work, according to Duponchel.

Not uncommon in the New Forest and in Devonshire; but rarely, if ever, found near London.

Sp. 10. fimbriaria.—*PLATE 30. f. 1.*—*Alis cinereo-griseis, fimbriâ latâ fuscâ, in quâ strigâ obsoletâ albâ, anticis puncto medio nigro.* (Exp. alar. 1 unc. 6 lin.)

Al. fimbriaria. *Steph. Catal. part ii. p. 125. No. 6502.*

Griseous-ash; anterior wings with a central black dot, and some dusky irrorationes, especially at the base and towards the costa; the hinder margin from the outside of the third ordinary striga deep fuscous, with an obsolete striga of lunular white spots; the posterior wings also irrorated with fuscous at the base, with the hinder margin broadly fuscous, and having an obsolete striga of white lunular spots as in the anterior: cilia fuscous.

Of this distinct species I possess a single example in fine condition: it was taken, I believe, in Suffolk.



GENUS CLXXXVI.—HEMEROPHILA*, *mihî*.

Palpi short, porrected obliquely, densely squamous, subclavate, obtuse, the terminal joint scarcely projecting beyond the scales; triarticulate, the basal joint stout, slightly curved, the second elongate, subcylindric, the third placed obliquely, minute, subacuminate: *maxillæ* short. *Antennæ* rather long; in the males each joint, excepting at the apex, producing on each side a short, obliquely placed, deflexed, ciliated branch, decreasing in length towards the tip, the terminal joints distinctly serrated within, with the extreme tip acute and recurved; in the females simple, obsoletely serrate within; *head* densely squamous between the eyes: *thorax* slender, velvety: *wings* expanded during repose; the anterior with dark strigæ, placed very obliquely on an ochraceous ground, and with their hinder margin obsoletely angulated in the middle, and obscurely indented; posterior rounded and deeply indented: *abdomen* slender, acute in the females.

The form and colour of the wings, and the disposition of the strigæ thereon, point out the pretensions of this genus to be separated from *Alcis* or *Boarmia*, or from *Acidalia*, with which it appears to be associated by Treitschke, the hinder margin of all the wings being indented, especially of the posterior. Duponchel includes it with *Boarmia*; but his genus of that name embraces the genera *Alcis*, *Cleora*, *Boarmia*, and others, the diversity in the structure of the male antennæ of which, exclusively of the discrepancy of the form and colouring of the wings, manifestly exhibits an artificial group.

Sp. 1. *abruptaria*. *Alis pallide ochraceis, subatomosis, fasciâ communi posticâ obliquâ fusco-brunnellâ pone punctum nigrum.* (Exp. alar. 1 unc. 6—8 lin.)

Ph. *abruptaria*. *Thunberg.*—He. *abruptaria*. *Steph. Catal. part ii. p. 125. No. 6503.*—Ph. *suberaria*. *Don. vii. pl. 251. f. 1.*

Pale ochraceous, wings clouded, the anterior with two very delicate and oblique repanded black strigæ, one before, the other behind, the middle, with a distinct round fuscous, or black, spot on the disc between; the space behind the posterior striga irregularly clouded with brunneous and lighter shades, with an obscure pale waved striga; on the costa are also some dark brunneous shades: posterior wings thickly striated transversely with fuscous-brown lines, but less towards the apex than at the base, with a broad deep-brown fascia in the middle, in which is a slender waved black striga; on the hinder margin of all the wings is an interrupted black line: the head and anterior scales of the thorax and margins of the abdominal segments are brown.

* Ἡμετέρα, dies; φίλος, amicus.

Not very uncommon on walls in gardens within the metropolitan district, and occasionally in woods and thickets in May. "Allesley."—*Rev. W. T. Bree*. "Epping."—*Mr. Doubleday*. "Weston-on-the-green."—*Rev. A. H. Matthews*.

GENUS CLXXXVII.—BOARMIA.

Palpi short, porrected horizontally, densely clothed with short scales, the terminal joint concealed; triarticulate, the two basal joints of equal length, the former curved, the second more robust and ovate, the terminal one minute; *maxillæ* rather short. *Antennæ* short, each joint in the males producing a row of curved hairs, simple in the females: *head* small: *eyes* globose: *thorax* small, velvety: *wings* placed horizontally during repose; of a pale hue, speckled with dusky, and marked with irregularly dentate dark strigæ; the anterior entire; the posterior deeply indented on the hinder margin: *abdomen* slender, attenuated in the males; shorter and acuminate in the females.

Having employed the term *Boarmia* in my Catalogue to such indigenous species of Treitschke's *Boarmiæ* as have the antennæ of the males pilose instead of pectinated, and the wings of a very pale-ashy or white hue, with numerous minute freckles and imperfect darker strigæ, it is here retained, although, strictly, *Cleora cinctaria*—which had been previously characterized—forms the type of *Boarmia*, as placed in Treitschke's at that time uncharacterized genus: in which particular I have been however followed, and shall therefore here retain the name:—the species greatly resemble each other; but as the leading characters of most have been well pointed out by Haworth, I have followed his characters.

Sp. 1. *tetragonaria*. *Albido-cinerea, alis fusco-nebulosis, strigis communibus obsoletissimè denticulatis saturatioribus*. (Exp. alar. 1 unc. 6—8 lin.)

Ge. *tetragonaria*. *Haworth MSS.*—Bo. *tetragonaria*. *Steph. Catal. part ii. p. 125. No. 6504.*—*Curtis, vi. pl. 280.*

Whitish-ash; wings clouded with fuscous, and irrorated rather thickly with the same; the anterior with a whitish fascia in the middle, a double irregularly curved fuscous striga towards the base, a darker somewhat denticulated one behind the middle, adjoining to which are two subquadrate fuscous clouds; the hinder margin is clouded with fuscous, and has an undulated whitish striga; the extreme edge of the wing is spotted with black: posterior wings with an indented fuscous line beyond the middle, and a shorter one placed obliquely anterior thereto, and towards the hinder margin two or three pale undulated ones, alternating with fuscous.

Like its congeners extremely variable in colour; but known by the large quadrate patch adjoining the denticulated striga on the anterior wings.

Birch-wood is the only locality I know for the capture of this species, where I have once taken it, and seen others secured, in the beginning of May.

Sp. 2. *Abietaria*. *Alis griseis atomosis, strigis communibus denticulatis saturatioribus*. (Exp. alar. 1 unc. 6—8 lin.)

Ge. *Abietaria*. *Haworth*.—Bo. *Abietaria*. *Steph. Catal. part ii. p. 125. No. 6505*.

Wings pale griseous, with minute fuscous irrorations and several darker common denticulated strigæ, varying considerably in number in different specimens, but the anterior have usually a curved one towards the base, and a more distinct repanded one behind the middle, near the centre of which, on the outside, is a subquadrate dusky patch, and some nebulæ of the same hue on its outer edge and towards the hinder margin of the wings, near which is an undulated pale striga; the extreme edge of all the wings with a few black spots, sometimes united by a very fine black line.

The basal strigæ on the posterior wings are very frequently obliterated; in fact, it is difficult to find two specimens precisely similar: the colour also varies exceedingly, some specimens having the ground of a very deep fuscous griseous, and others nearly cinereous.

Duponchel appears to consider this insect and the following as varieties of Hübner's *Ge. consobrinaria*.

Far from rare in some of the metropolitan woods in March and April, especially at Coombe and Birch Woods. "Epping."—*Mr. Doubleday*. "Kimpton, common."—*Rev. G. T. Rudd*.

Sp. 3. *crepuscularia*. *Alis albidis subatomosis, strigis communibus denticulatis fuscis*. (Exp. alar. 1 unc. 6—7 lin.)

Ge. *crepuscularia*. *Wien. Verz.*—Bo. *crepuscularia*. *Steph. Catal. part ii. p. 125. No. 6506*.

Wings whitish, or white, sprinkled with fuscous, and a little clouded with griseous, with several repanded common denticulated fuscous strigæ, varying in number in different examples, as in the preceding species; on the costa are some very distinct equidistant black spots, whence the strigæ arise, and on the hinder margin of the wings a series of darker triangular ones; cilia immaculate white.

Smaller and whiter than the preceding, but slightly variable in tint.

Equally abundant with the last, in the same localities, but found in the beginning or middle of May, and in June. "Allesley and Coleshill."—*Rev. W. T. Bree*. "Epping."—*Mr. Doubleday*. "Kes-

wick."—*G. Wailes, Esq.* "Raehills, Dumfries-shire."—*Rev. W. Little.*

Sp. 4. consonaria. *Alis cinerascentibus atomosis, strigis communibus valdè interruptis vix undulatis.* (Exp. alar. 1 unc. 4—7 lin.)

Ge. consonaria. *Hübner.*—Bo. consonaria. *Steph. Catal. part ii. p. 125. No. 6507.*

Wings cinerascens, sprinkled with fuscous, with very obsolete common interrupted strigæ, the anterior fuscous, the posterior one towards the hinder margin cinereous, white without, all very slightly waved.

Rather smaller than either of the foregoing, and differing in the period of its flight.

Found at Darenth in July, but rarely.

Sp. 5. strigularia. *Alis cinereo-albidis, griseo-subnebulosis, atomosis, strigis obsoletissimis communibus subdenticulatis fuscescentibus.* (Exp. alar. 1 unc. 5—6 lin.)

Bo. strigularia. *Steph. Catal. part ii. p. 125. No. 6508.*

Wings ashy-white, clouded with griseous, and finely sprinkled with fuscous; with several very obsolete common slightly denticulated fuscescent strigæ, varying in number in different specimens: the hinder margin of all the wings with black spots.

Smaller than either of the foregoing, and in habit resembling Bo. crepuscularia, but its time of appearance is different.

Found at Darenth-wood in July, but very rarely.

Sp. 6. extersaria. *Alis cinereo-griseis, fusco-irroratis, strigisque obsoletis saturationibus, anticis maculâ posticâ albidâ.* (Exp. alar. 1 unc. 4 lin.)

Ge. extersaria. *Hübner.*—Bo. extersaria. *Steph. Catal. part ii. p. 125. No. 6509.*

Wings ashy-griseous, irrorated and spotted with fuscous, the anterior with obsolete darker strigæ, and in fine examples a fuscous ring on the disc, adjoining the second striga; towards the hinder margin is a distinct whitish undulated striga, towards the middle of which is a very distinct somewhat rounded white patch; and on the hinder margin is an irregular black line: cilia griseous, interrupted with fuscous: posterior wings with a pale waved striga towards the hinder margin, and in some specimens one or more obsolete paler or fuscous transverse strigæ towards the base: cilia fuscous, with the apex a little clouded with griseous.

Very rare, at least within the metropolitan district: it has been found in the woods near Highgate and Colney-hatch, and I possess a very fine pair that I captured many years since at Darenth-wood in the beginning of June.

Sp. 7. punctularia. *Alis cinereo-albidis, atomis strigisque tribus aut quatuor subcommunibus undulatis arcuatis subinterruptis fuscis.* (Exp. alar. 1 unc. 1—3 lin.)

Ge. punctularia. *Hübner.*—Bo. punctularia. *Steph. Catal. part ii. p. 125. No. 6510.*

Wings ashy-white, with pale fuscous irrorations, and with three or four nearly common undulated bent subinterrupted fuscous strigæ, arising from deep conspicuous equidistant dark spots on the costa; the exterior (or fourth) striga is frequently evanescent, and in lieu thereof is an irregularly undulated white one, bordered within with fuscescent: the strigæ on the posterior wing are generally very obscure, sometimes altogether wanting; at the base of the cilia is a fine interrupted black line, and the cilia are whitish, spotted with fuscous. In some examples the wings are of a deep fuscous ash, and in others of a gray tinge.

Caterpillar dusky-gray-brown, with five brighter stripes and a whitish streak on each segment: it feeds on the birch (*Betula alba*):—the imago appears about the middle of May.

Very abundant in Coombe, Birch, and Darenth Woods, and not unfrequently taken in other woods within the metropolitan district, where the birch abounds. “Allesley.”—*Rev. W. T. Bree.* “Epping.”—*Mr. Doubleday.* “Baron-wood.”—*T. C. Heysham, Esq.* “Newcastle, Meldon Park, &c.”—*G. Wailes, Esq.*

GENUS CLXXXVIII.—HALIA, *Duponchel.*

Palpi short, connivent, acute, porrected obliquely, the base with elongate scales, the apex slightly exposed; triarticulate, the basal joint more than two-thirds the entire length, slender, considerably curved; the second very short, ovate; the terminal minute ovate, subconic: *maxillæ* long. *Antennæ* short, in the males each joint producing a short clavate ciliated twig on each side, gradually shortening towards the apex, of which the few last joints are obconic and simple, and the branches towards the base are also abbreviated; simple in the females: *head* small: *eyes* large, globose: *thorax* slender: *wings* expanded during repose, pubescent; anterior with the hinder margin entire, repanded, the costa with dark spots producing indistinct fasciæform lines; posterior obscurely indented on the hinder margin: *body* slender; acute in the females. Larva with 10 legs, smooth, spotted: pupa formed in a folliculus amongst leaves; acuminate at the apex.

The genus *Grammatophora* of my Catalogue; subsequently characterized by Duponchel by the name it here bears:—it may be readily known from all the foregoing by the great length of the basal joint of the palpi, the short triangular pulverulent wings, of which the anterior have certain black marks on the costa, which are ob-

solely continued in fine strigæ towards the inner margin: the antennæ are differently pectinated, the terminal joints being simple, but very distinct.

Sp. 1. *Vauaria*. *Alis cinereis, anticis fasciis quatuor nigris abbreviatis inæqualibus.* (Exp. alar. 1 unc. 1—3 lin.)

Ph. Ge. *Vauaria*. *Linné.*—*Don.* vi. pl. 196.—*Grammatophora Vauaria.* *Steph.* *Catal.* part ii. p. 126. No. 6511.

Wings ashy-white or cinereous; the anterior with four equidistant black spots on the costa; the first a little bent; the second, frequently obconic, about the middle, extending as a faint flexuous striga towards the inner margin, and adjoining to it towards the costa is a deep black V; the third costal spot is placed obliquely, and terminates in an obsolete striga of minute black spots; the fourth is towards the apex and also placed obliquely, with sometimes a brownish spot attached; posterior wings rather paler, with a fuscous or black spot in the middle.

Extremely variable in colour, and also in the form of the lituræform black costal marks; in some examples the three anterior ones resemble a roman T when the wings are expanded, and the V-like mark is sometimes placed on the second spot, at others behind it. Some specimens have the wings white, prettily marbled with cinereous; others are nearly of a sooty black: the latter variety forms the Ge. V nigraria of the Entomological Transactions, pl. 7. f. 3.

Caterpillar greenish, spotted with black, with a yellow dorsal and lateral lines; it feeds on the red currant and gooseberry:—the pupa is brown:—the imago appears abundantly in June and July.

Extremely abundant in gardens throughout the metropolitan district, the larvæ being very destructive to gooseberry-bushes. "Epping."—*Mr. Doubleday.* "Abundant everywhere in Cambridgeshire."—*Rev. L. Jenyns.* "Weston-on-the-green."—*Rev. A. H. Matthews.* "Rockcliff, Scotby, &c."—*T. C. Heysham, Esq.* "York and Newcastle."—*G. Wailes, Esq.*

GENUS CLXXXIX.—NUMERIA, *Duponchel.*

Palpi distant, subhorizontal, compressed, acuminate, projecting beyond the forehead; triarticulate, the basal joint somewhat robust, curved; the second elongate, slightly attenuated at the tip; terminal very minute, placed obliquely: *maxillæ* short. *Antennæ* moderate, each joint in the male, excepting four or five at the apex, producing on either side a short incurved ciliated twig, and of the females distinctly serrated within: *head* small: *eyes* globose: *thorax* slender, slightly squamous: *wings* entire, pulverulent, the anterior with a transverse dolabriform fascia in the middle, the hinder margin obscurely angulated: the posterior rounded: *abdomen* slender; acute in the females.

Larva with 10 legs, elongate, slightly attenuated in front; head deeply emarginate, the eighth segment with two and the tenth with one tubercle: pupa folliculated.

From the foregoing genera the present may be instantly known by the broad hatchet-shaped fascia which adorns the anterior wings, the ground colour of which is pale testaceous or rusty-red, with minute darker freckles: there is also considerable diversity in the structure of the palpi, and in the form of the pectinations of the antennæ; and the larva has the head distinctly emarginated, and has several tubercles on the hinder segments.

Sp. 1. *pulveraria*. *Alis omnibus testaceo-pulverulentis, fasciâ medio anticarum dolabriformi brunneo-rufâ, aut ferrugineâ.* (Exp. alar. 1 unc. 2—7 lin.)

Ph. Ge. *pulveraria*. *Linné*.—*Azinephora pulveraria*. *Steph. Catal. part ii. p. 126. No. 6513. Albin, pl. xevi. f. d—f.*

Pale testaceous or rufescent; wings thickly dusted with a darker tint; the anterior with a broad hatchet-shaped reddish-brown or ferruginous fascia in the middle, its anterior margin being nearly straight and its outer lobate towards the costa, the lobe frequently emarginate: posterior wings with a more or less distinct fascia within, rather behind the middle: cilia more or less rufescent. The colour of the fascia varies exceedingly, and also its width: in some examples it occupies nearly one-third of the surface, while in others it becomes so much attenuated in the middle as to be interrupted: others again have the fascia solid, while some have the centre paler than the sides: the ground colour of the wing also varies considerably; in some specimens it is slightly tinted with olivaceous.

Caterpillar reddish-brown, with brighter streaks on each segment:—it feeds on the black-thorn and willow, and the imago appears towards the beginning of June.

Not very abundant; but found in all the woods in the vicinity of the metropolis, and in several other places. “Epping.”—*Mr. Doubleday*. “Rose Castle, Cumberland.”—*T. C. Heysham, Esq.* “Meldon Park, April and June.”—*G. Wailes, Esq.*

GENUS CXC.—CABERA, *Ochsenheimer*.

Palpi very short, scarcely projecting beyond the forehead, slender, slightly squamous; triarticulate, the basal joint coarctate at the base, thickened at the apex, curved; second rather shorter, elongate-ovate, terminal minute ovate, *maxillæ* rather long. *Antennæ* of the males pectinated; each joint, excepting about nine at the apex, producing an elongate, subclavate, ciliated twig; of the

females obsoletely serrate beneath, and slightly pilose: head small: eyes globose: thorax slender, velvety: wings partially extended during repose, the hinder margin of all entire and somewhat rounded, all finely pulverulent, and traversed with simple darkish strigæ on a white or ashy ground: abdomen slender, stouter and rather acute in the females.

Larva slender, smooth, with two slight spines on the last segment; the head large, rounded: pupa formed in a folliculus among leaves.

In form the insects of this genus considerably resemble the *Numeriæ*, but exclusively of the great diversity in colour (the *Caberæ* being white or snowy, with minute pale ashy irrorations and simple darker strigæ), the form and structure of the palpi and of the antennæ, their metamorphosis is different:—all the species appear also to be double-brooded, appearing first about May, and a second time in August.

Sp. 1. *pusaria*. *Alis niveis cinereo-subatomosis, anticis strigis tribus medio æquidistantibus subundulatis, posticis duabus cinereis.* (Exp. alar. 1 unc. 2—4 lin.)

Ph. Ge. *pusaria*. Linné.—Ca. *pusaria*. Steph. Catal. part ii. p. 126. No. 6514. *Albin*, pl. xcvi. f. c—h.

Snow-white; wings faintly speckled with pale cinereous; the anterior with three slightly undulated, equidistant, dark cinereous or plumbescens strigæ in the middle; posterior with two, corresponding with the two outer ones on the anterior wings: cilia pure immaculate snow-white.

Rather variable: in some examples the strigæ are not equidistant, the central one sometimes approximating to the anterior and occasionally to the posterior one; and in other instances one or more of the strigæ is deficient, and in some cases all are obliterated.

Caterpillar slender, pale greenish, with a row of red dots down the back: it feeds on the hazel, willow, alder, birch, &c.:—the imago is double-brooded, appearing in May and August.

Extremely abundant in all the woods and copses within the metropolitan district; and not uncommon in other parts of the country. “Alderley, Cheshire.”—Rev. E. Stanley. “Epping.”—Mr. Doubleday. “Baron and Black Hall Woods.”—T. C. Heysham, Esq. “Weston-on-the-green.”—Rev. A. H. Matthews.

Sp. 2. *rotundaria*. *Alis rotundatis niveis, fusco-subatomosis, strigis duabus medio communibus subundulatis plumbescentibus, anticâ anticarum geminâtâ.* (Exp. alar. 1 unc. 1—3 lin.)

Ge. *rotundaria*. Haworth.—Ca. *rotundaria*. Steph. Catal. part ii. p. 126. No. 6515.

Snow-white; wings short, the hinder margin considerably rounded, slightly sprinkled with pale fuscous, with two common somewhat waved plumbeous strigæ, of which the anterior on the anterior wings is, as it were, duplex: cilia immaculate white.

The above is nearly Mr. Haworth's definition of this very distinct and pretty insect:—it differs from the last by being smaller, by having the anterior striga of the anterior wings very much curved, and in general closely approximating to the second (or counterpart of the above description): the posterior striga is nearly straight. The strigæ vary much in intensity, and in one of my specimens the two first are united in the middle and form a cross.

Rather scarce: my specimens were all taken in Darent-wood in May; but the insect has been captured at Coombe and Birch Woods at the same period and in August.

Sp. 3. *exanthemata*. *Alis sordide albidis, subfusco-atomosis, anticis strigis tribus, posticis duabus fusco-lutescentibus, ciliis pallidæ ochraceis.* (Exp. alar. 1 unc. 1—3 lin.)

Ph. *exanthemata*. *Scopoli*.—Ca. *exanthemata*. *Steph. Catal. part ii. p. 126. No. 6516. Albin, pl. xcii. f. e—h.; pl. xcix. f. a—d.*

Dull-white: wings sprinkled with minute pale-fuscous dots; the anterior with three and the posterior with two pale lutescent-brown strigæ, the latter corresponding with the two outer ones on the anterior wings: cilia pale ochraceous, or flavescent. Beneath all the wings are thickly sprinkled with dark fuscous, and have each a distinct black dot in the centre.

Also very variable as to the disposition or absence of the strigæ, as well as in the intensity of their colour; in some examples the central one is almost or totally united to the first—forming the *Ge. approximaria* of Haworth; or the wings are more thickly sprinkled with fuscous—and form the *Ge. striaria* of the same writer.

I possess one specimen, which I captured at Darent, entirely of a deep ashy-brown, with scarcely a vestige of strigæ.

Caterpillar reddish above, with a pale lateral streak and a white line on the margin of each segment: it feeds on the birch:—the imago appears in May and August.

Also very abundant in woods and bushy lanes adjoining plantations of birch. "Epping."—*Mr. Doubleday*. "Black Hall wood and Cummersdale."—*T. C. Heysham, Esq.* "Newcastle, Keswick, &c."—*G. Wailes, Esq.* "Weston-on-the-green."—*Rev. A. H. Matthews.*

GENUS CXCI.—EPHYRA, *Duponchel*.

Palpi slender, short, drooping, slightly squamous, not extending beyond the forehead; terminal joint slightly exposed, subovate; triarticulate, the basal joint slender, slightly bent and a little thickened at the apex; second rather shorter, subcylindric, a little attenuated at the apex; terminal elongate-ovate, half as long as the second: *maxillæ* long. *Antennæ* of the males bipectinated for about half their length, the apex simple, slightly pubescent within; of the females entirely simple and slightly pubescent on the inner side: *head* small: *eyes* globose: *thorax* slender: *wings* slightly expanded during repose, entire; the hinder margin of the anterior slightly repanded, the apex acute, the hinder angle rounded; posterior obsoletely angulated in the middle; the base of all more or less pulverulent, and the centre of the typical species with a circular spot or ocellus, of the remainder with a broad common striga: *abdomen* slender, stouter and acute in the females.

Larva slender, smooth, without tubercles; the head large, rounded; pupa truncate anteriorly, coarctate in the middle, the apex acute; suspended tail downwards, with a silken band across the breast, after the manner of the *Ponticæ*.

These pretty insects, which form the genus *Cyclophora* of my Catalogue, from the circle which adorns the disc of all the wings of most of the species, may be known by that character, united to their small size, pulverulent base of the wings, which have usually one or more common strigæ on them, composed of black dots, and pale-ochraceous, yellowish, or rufescent ground colour: the antennæ of the males have the apical half simple, the anterior wings are slightly falcate, and the posterior obsoletely angulated in the middle: the pupa is truncate, and is suspended by a silken thread across the breast.

Sp. 1. *omicronaria*. *Alis flavidis, strigâ repandâ ante alterâque latior predentatâ pone medium communibus, annulo interjecto nigris.* (Exp. alar. 11—13 lin.)

Ge. *omicronaria*. *Wien. Verz.*—*Cyclophora omicronaria*. *Steph. Catal. part ii.* p. 127. No. 6517.

Pale whitish-yellow; the wings with a common repanded fuscous striga near the base, and a second behind the middle, strongly and irregularly dentate, having a fuscous band accompanying it on its inner edge; behind this is an obscure striga, and on the hinder margin is a row of minute black dots: cilia immaculate: between the strigæ, in the centre, of each wing is a distinct conspicuous black circle.

Variable: in some instances the anterior striga is wanting, the place being indicated by three black dots only; in others the fuscous band adjoining the posterior striga is either totally obliterated, or is so powerful as nearly to

obliterate the striga, and in some cases the circles are very faint; and one of my specimens has a black longitudinal streak at the base of the wing. Caterpillar green, slightly mottled: it feeds on the maple:—the imago appears towards the end of May, and a second time at the end of August.

Not very uncommon within the metropolitan district, especially in Darenth-wood and other parts of Kent: I have also taken it frequently at Ripley in the beginning of September. “Epping.”—*Mr. Doubleday*. “Great Orton.”—*T. C. Heysham, Esq.*

Sp. 2. *pendularia*. *Alis omnibus albidis, strigis duabus communibus punctorum nigrorum, annulo purpureo interjecto.* (Exp. alar. 11—13 lin.)

Ph. Ge. *pendularia*. *Linné*.—*Cy. pendularia*. *Steph. Catal. part ii. p. 127. No. 6519. Albin, pl. l. f. 85. a—d.*

Hoary-white; wings with two common strigæ of black dots, one curved before the middle, the other slightly repanded behind, with a purplish or ferruginous circle on the disc between: behind the posterior striga are some fuscous clouds; and on the hinder margin itself is a row of minute black dots: cilia white.

In the middle of the wings is sometimes a common purplish, or fuscous, band, passing through the ocelli, which latter vary exceedingly in size, and are sometimes bordered with fuscous.

The freckles on the wings are sometimes purplish.

Caterpillar pale greenish, with the head and tail red: it feeds on the oak, birch, alder, &c.:—pupa bright green:—the imago is produced in May, and a second time in August.

Also not uncommon in the metropolitan woods. “Epping.”—*Mr. Doubleday*.

Sp. 3. *orbicularia*. *Alis fusco-cinereis annulo medio purpureo, pupillâ albâ, strigâque subrepandâ posticâ communis punctorum nigrorum.* (Exp. alar. 1 unc. 1—2 lin.)

Ge. *orbicularia*. *Hübner*.—*Cy. orbicularia*. *Steph. Catal. part ii. p. 127. No. 6521.*

Brownish-ash or ashy-white, extremely freckled with elongate fuscous streaks, all the wings with a purplish ring in the middle, having a white centre, an indistinct common striga of black dots towards the base, and a second slightly repanded one towards the posterior margin, accompanied externally with whitish, and on the hinder margin itself a row of minute black dots: cilia cinereous.

In some specimens there is a purplish fascia passing through the centre of the wings.

Rare, at least near London: I have once taken it at Coombe-wood, where it has been found three or four times; also in the woods near Erith, in the New Forest, and near Lewes in Sussex.

Sp. 4. *porata*. *Alis pallide flavis, rufo nigroque pulverulentis, fasciolâ medio communis saturatiore, in quâ ocellus niveus, iride fuscâ.* (Exp. alar. 11—13½ lin.)

Ge. *porata*. Linné.?—Cy. *ocellaria*. Steph. *Catal. part ii. p. 127. No. 6518. Albin, pl. xlix. No. 82. f. a—d.*

Wings pale yellow or rufescent, thickly pulverulent with rufous and black, with a central fascia of a darker rufous common to all, in which is placed a snowy ocellus, with a fuscous iris; in addition to which are two rather obscure strigæ of black dots, one before, the other behind, the middle, a row of smaller black dots on the hinder margin, and frequently between the latter and the posterior striga several fuscous clouds, disposed in a series.

Exceedingly variable in the intensity of its hues and markings; in some examples the striga and ocelli are nearly obliterated, and the fuscous clouds on the hinder margin are totally wanting; others have the central fascia extremely broad; and in some the posterior wings are considerably paler than the anterior.

Caterpillar various, brownish, or pale flavescent; sometimes green, mottled with paler colours: it feeds on the oak, birch, &c.: the pupa is brown:—the imago appears in May, and again in August.

Very abundant in Coombe, Birch, and Darent Woods, and I believe also in other parts. “Epping.”—*Mr. Doubleday*. “Flisk, N. B.”—*Rev. J. Fleming*.

+ Sp. 6. *albicinctata*. *Alis nigris, singulis puncto medio, strigâque juxtâ marginem posticum communi albis.* (Exp. alar. 1 unc. 1 lin.)

Ph. *albicinctata*. Haworth.—Cy. *albicinctata*. Steph. *Catal. part ii. p. 127. No. 6520.*

Wings black, each with a central black dot, and a whitish common striga towards the hinder margin.

“Taken formerly near Peckham by Mr. Pickersgill.”—*Haworth, l. c.*

Sp. 7. *punctaria*. *Alis omnibus rufescentibus atomis minutissimis nigris,*

+ Sp. 5. *ocellaria*. *Alis lutescentibus fusco-nebulosis, omnibus ocellis disco nigris, pupillâ magnâ albâ.*

Ge. *ocellaria*. Hübner.—Ge. *ocellaria* β. Haworth (!).

Wings lutescent, clouded with fuscous, all with a black ocellus on the disc, having a very large white pupil.

From Duponchel's figure of this insect, copied from Hübner, this insect appears totally distinct from the foregoing, with which it has been considered synonymous: it becomes therefore a matter of doubt whether it be indigenous.

strigæ communi ferrugineâ serrieque punctorum nigrorum. (Exp. alar. 1 unc 1—2 lin.)

Ph. Ge. punctaria. *Linné*.—Cy. punctaria. *Steph. Catal. part ii. p. 127. No. 6522*.—Ph. Ge. communifasciata. *Don. xiii. pl. 456.*

Wings rufescent, or yellowish, sprinkled with minute black dots, with a common central ferruginous or fuscous striga, and a series of black dots towards the hinder margin, the latter with a slender interrupted black line: posterior wings generally palest.

Extremely variable: the central striga is sometimes nearly obliterated, and at others is very broad, and accompanied anteriorly with a row of black dots; the usual series of black dots is occasionally wanting, and the wings in some instances are scarcely freckled; and they are sometimes entirely of a pale luteous-yellow, without the slightest tinge of red.

Caterpillar brownish or yellowish green, with some reddish and yellow streaks on the sides; it feeds on the oak;—the pupa is reddish, with the apex yellowish:—the imago appears first in May, and a second time in August.

Also very abundant near London, perhaps the most frequent of the genus, affecting woods, copses, bushy lanes, &c. “Epping.”—*Mr. Doubleday*. “Hesket-moss.”—*T. C. Heysham, Esq.*

Sp. 8. trilinearia. *Alis luteis, strigis tribus communibus fuscis, medio latiore.* (Exp. alar. 1 unc. 1—2½ lin.)

Ge. trilinearia. *Borkhausen*.—Cy. trilinearia. *Steph. Catal. part ii. p. 127. No. 6523.*

Bright clear luteous: wings with a very indistinct striga before the middle; a second repanded one, composed of black dots, behind the middle; and a third broader fasciæform one in the middle, nearly straight; on the hinder margin is a fine interrupted black line.

Slightly variable as to the comparative distances of the strigæ from each other; and in some instances the first and third are totally obliterated; the wings being clear immaculate luteous, with a single central fuscous striga.

Rare near London: I have taken it in a shattered condition at Birch-wood: but in the New Forest (whence I have received several examples) it appears to be more abundant. “Epping.”—*Mr. Doubleday*.

GENUS CXCII.—BRADYEPETES * *mihi*.

Palpi distant, slender, short, not porrected beyond the head, slightly squamous: the terminal joint very slender and acuminate; triarticulate, the basal joint

* *Βραδεία*, tarditas; *πιτομαι*, volo.

short, curved; the second rather longer, compressed; terminal elongate-subclavate: *maxillæ* rather long. *Antennæ* rather long, incurved, in the males bipectinated nearly to the apex, each of the pectinated joints producing on each side rather a long ciliated twig; in the female simple: *head* small, prominent anteriorly: *eyes* globose: *thorax* slender, slightly velvety: *wings* partially expanded during repose, entire; anterior with the superior angle very acute, the hinder margin obscurely repanded; posterior with the middle of the hinder margin produced to a point: all traversed by a striga which passes diagonally from apex to apex of the anterior ones: *abdomen* slender, stouter and rather obtuse in the females. Larva not tuberculated, thickened anteriorly: pupa attenuated, formed in a slight web amongst leaves.

This genus is well known by the very acute anterior angle of the anterior wings, and the angulated or rather subcaudated hinder margin of the posterior ones, combined with the oblique striga which passes through their disc from the apex of the one anterior wing to that of the other, the very short palpi, strongly pectinated incurved antennæ of the males, and pale flavescent hue: it is evidently closely allied to some of the species of the preceding genus, but what affinity it can possibly have to *Hipparchus*, near which it has been recently placed, I am at a loss to comprehend.

Sp. 1. *amataria*. *Alis pallide cinereo-flavis griseo-pulverulentis, strigâ præ-obliquâ communi ciliisque rubropurpureis, strigâque fuscâ repandâ.* (Exp. alar. 1 unc. 2—4 lin.)

Ph. Ge. *amataria*. Linné.—Br. *amataria*. Steph. Catal. part ii. p. 128. No. 6524.—Ph. *amatorio*. Don. ii. pl. 33. f. 2.

Pale ashy-yellow, sprinkled with griseous, with a very oblique common purplish-red or sanguineous striga arising at the apex of the anterior wings, and passing through the middle of the inner margin, and a little before the middle of the posterior; towards the base of the anterior wings is a very obscure pale fuscous striga, a fuscous dot on the disc, and an obsolete repanded common fuscous striga towards the hinder margin, intersecting the purple one at the apex of the anterior wings: on the hinder margin of all the wings is a bright slender purple line, and the cilia are also purple, but of a paler hue, and sometimes flavescent at the tips.

In fine examples, the hinder margin of all the wings is beautifully suffused with rich sanguineous purple.

Caterpillar reddish-brown, with darker shades, and a paler dorsal line: it feeds on the hazel, whitethorn, &c., and the imago appears at the end of June, and flies very heavily.

Very local, but in some places extremely abundant, especially in the lanes near Ripley; it also occurs near Hertford, in Copenhagen-

fields, Darenth-wood, &c. “Allesley and Coleshill.”—*Rev. W. T. Bree*. “Epping.”—*Mr. Doubleday*. “Weston on-the-green.”—*Rev. A. H. Matthews*.

GENUS CXCIIL.—EPIONE, *Duponchel*.

Palpi very short, slightly ascending, porrected beyond the head, densely squamous, subclavate, the terminal joint nearly concealed; triarticulate, the basal joint slender, short, curved, the second longer, stouter, subclavate; terminal minute, subglobose: *maxillæ* long. *Antennæ* bipectinated to the apex in the males, the pectinations short, especially on the terminal joints, each joint producing one on each side; simple in the females: *head* small: *thorax* slender, velvety: *wings* slightly extended during repose; anterior with the hinder margin produced in the middle, the superior apex acute; posterior with the outer margin more or less emarginate towards the apex: *abdomen* slender, stouter and rather acuminate in the females. Larva attenuated anteriorly, not tuberculated, covered with distant hairs; head small, quadrate: pupa enveloped in leaves united by a silken thread.

If outline be in any manner characteristic of generic distinctions in the Lepidoptera, doubtless the genus *Epione* of *Duponchel* must find a place in our systems; the contour of the wings being totally dissimilar to those of *Bradyepetes* and *Eurymene*, with which genera I inadvertently associated this genus in my Catalogue, and in which particular I have been partly followed: the anterior wings are acute at the anterior tip, with the hinder margin repanded; but the posterior are rounded, and emarginated or sinuated towards the apex of the hinder margin, the structure of the palpi is dissimilar, and the antennæ of the males are pectinated to the apex.

Sp. 1. *apiciaria*. *Alis repandis luteis, anticis suprâ strigâ baseos angulatâ rufofuscâ, alterâ intermediâ fuscâ obliquâ in apicem excurrente, limbo acutangulo cinereo-rufescente*. (Exp. alar. 1 unc. 1—4 lin.)

Ge. *apiciaria*. *Wien. Verz.*—Br. *apiciaria*. *Steph. Catal. part ii. p. 128. No. 6527.*

Ph. Ge. *vespertina*. *Don. vii. part 233. f. 3.*

Luteous, with minute reddish lineolæ, anterior wings with a rectangular red-brown striga before the middle, and a second repanded fuscous one arising at the apex, common to all the wings, the space from thence to the cilia of a dark red-brown or cinerascient red; between the strigæ, and on the disc of the posterior, a small round black dot. Female similar in colour.

Slightly variable; the base of the anterior wings is sometimes dark; and at others the marginal fimbria is more or less obliterated.

Caterpillar grey, with a white streak on the back, and spots of the same colour

on the sides, and some black dots: it feeds on the willow:—the imago appears towards the end of July.

Rather local; found in some parts of Epping Forest rather plentifully; and abundantly in a marshy lane near Ripley. "Allesley."—*Rev. W. T. Bree*. "Epping."—*Mr. Doubleday*. "Neale House, Cumberland."—*T. C. Heysham, Esq.* "Swaffham Prior, Cambridgeshire."—*Rev. L. Jenyns*. "Weston-on-the-green."—*Rev. A. H. Matthews*.

Sp. 2. *vespertina*. PLATE 28. f. 3. *Alis repandis sinuatis luteis, anticis supra strigâ baseos rotundatâ rufâ, alterâ intermediâ fuscâ sinuatâ, limbo lato, cinereo-rufo.* (Exp. alar. 1 unc. 1—2 lin.)

Ge. *vespertina*. *Linné*.—Br. *vespertina*. *Steph. Catal. part ii. p. 128. No. 6528.*

Pale luteous, with minute reddish lineolæ; anterior wings with a pale incurved striga before the middle, and a second, sinuated, fuscous one behind, common to all the wings, arising at a distance from the apex of the anterior, the space from the latter to the hinder margin of a rich ashy-red, or purplish; and the centre of all with a dusky spot. Female pale luteous-yellow, with the base of the anterior wings, and the outer margins of all, ashy-red; the posterior striga being strongly angulated in all the wings.

Caterpillar ashy-grey, with a yellowish lateral line in front, and white dots behind, clothed with brown hairs: it feeds on the hazel:—the moth appears about the middle of July.

Extremely rare in Britain; all the specimens which have come to my knowledge, about six, were captured in Yorkshire and the adjoining counties. "Floshes."—*T. C. Heysham, Esq.*

Sp. 3. *advenaria*. *Alis subrepandis pallide cinereis, strigis duabus atomisque fuscis, limbo pallido.* (Exp. alar. 1 unc. 1—2 lin.)

Ge. *advenaria*. *Hübner*.—Br. *advenaria*. *Steph. Catal. part ii. p. 128. No. 6525.*

† Sp. 4. *dilectaria*. *Alis pallide flavis, lineis anticis duabus maculisque ferrugineis; posticis lineâ unicâ.*

Ge. *dilectaria*. *Hübner*.—*Haworth (!)*.—Br. *dilectaria*. *Steph. Catal. part ii. p. 128. No. 6526, note.*

Wings pale yellow, the anterior with ferruginous spots and two strigæ, the posterior with one striga.

Mr. Haworth suspects he has seen this insect in some collections, on which slight authority it has recently been given as an *undoubted indigenous* species; but as I have not yet seen an example in any of the collections that have come under my inspection, I consider that it is not indigenous.

Pale cinereous or flavescent, minutely sprinkled with pale fuscous: anterior wings with an angulated fuscous striga near the base, and a second somewhat recurved one behind the middle, with the space between rather darker, giving the margin a paler appearance; towards the apex a small undefined whitish spot; posterior with a blackish dot in the middle, and a pale repanded fuscous striga behind; the hinder margin of all the wings with a pale fuscous line; the cilia ashy interrupted with fuscous.

Caterpillar anteriorly grey-brown, dotted with black, the fifth segment with two snow-white spots, the next mottled with whitish and grey: it feeds on the whortle-berry (*Vaccinium Myrtillus*):—the imago appears about the middle of June.

Rare; found occasionally in the woods to the north of London, between Highgate and Hampstead, and at Colney-latch.

GENUS CXCIV.—EURYMENE, *Duponchel*.

Palpi stout, porrected obliquely, rather beyond the head, the apical joint concealed; triarticulate, the basal joint robust, short, curved, the second longer, straight, terminal minute, globose: *maxillæ* rather long. *Antennæ* incurved, slightly bipectinated nearly to the apex in the males, the apical joints simple and rather stout; in the females obsoletely serrated within: *head* with the front very prominent: *eyes* globose: *thorax* slender, slightly velvety: *wings* partially expanded during repose; anterior narrow, with the hinder margin subtruncate and excised towards the anal angle; posterior large, rounded; also with the hinder margin somewhat excised towards the anal angle, which is rather acute and prominent; all without strigæ, the anterior with elongate streaks, and all with a dark ustulated spot at the anal angle: *abdomen* rather long, stout and carinated in the females. Larva with 10 legs, the second and eighth segments tuberculated, head slightly emarginated in front: pupa elongate, formed in a slight web amongst leaves.

The narrow, elongate, retuse, angulated anterior wings, the surface of which is irregularly and transversely streaked, without distinct strigæ, and a dark cloud at the anal angles of all, combined with the large posterior ones, stout, obtuse palpi, prominent forehead, and slightly pectinated antennæ of the males, serve to point out the more evident external characters which distinguish this genus from its congeners.

Sp. 1. *dolabraria*. *Alis rufescentibus aut subflavescentibus lineolis tenuissimis irregularibus confertis ustulatis, basi maculâque anguli ani ustulato-purpurascentibus*. (Exp. alar. 1 unc. 2—5 lin.)

Ph. Ge. *dolabraria*. *Linné*.—*Don*. x. pl. 341. f. 1.—*Br. dolabraria*. *Steph. Catal. part ii. p. 123. No. 6529*.

Pale yellowish or rufescent, with the anterior wings thickly but very irregularly marked with transverse slender ustulated streaks, the base, a fasciæform cloud behind the middle, and a portion of the hinder margin brownish, towards the anal angle an ustulated-purplish blotch; posterior wings paler, with the base immaculate, the hinder margin with a few ustulated streaks condensed into an ustulated-purplish blotch at the anal angle; cilia rufescent, purplish towards the anal angle of all the wings: head, antennæ, anterior portion of the thorax, and apex of the abdomen ustulated, and sometimes tinged with purplish.

Caterpillar greenish-brown, with some black spots, and a lateral line, yellow in the middle, and brownish behind: it feeds on the oak, lime, &c.:—the pupa is brown:—the imago appears towards the end of June.

Not very common: taken occasionally in Richmond-park, and at Coombe and Darenth Woods; also at Dover and in Devonshire. "Warwick."—*Rev. W. T. Bree*. "Epping."—*Mr. Doubleday*. "Baron-wood."—*T. C. Heysham, Esq.* "Bottisham."—*Rev. L. Jenyns*. "Weston-on-the-green."—*Rev. A. H. Matthews*.

GENUS CXCV.—PELLONIA, *Duponchel*.

Palpi obtuse, not projecting beyond the forehead: *maxillæ* long. *Antennæ* very long, bipectinated in the males, simple in the females: *wings* entire, all traversed by a narrow band towards the centre of the disc, the band often dividing into two lines: *legs* very long. Larva with ten legs, long, slender; pupa slender.

Not having had an opportunity of examining an insect of this genus with reference to its generic distinction, I have been compelled to depend upon Duponchel's * abridged character.

* It is necessary to observe, that in referring to Duponchel, I do so from a firm conviction of the propriety thereof, consequent upon the following passage in his 7th volume: "Prejudiced in favour of Treitschke's arrangement of the Phalænidæ, I had intended to adopt it unaltered in this work (the *Lépidoptères de France*, commenced by his friend Godart, and carried on so praiseworthy by Duponchel, in consequence of the lamented death of the former); but on applying it to *my own* collection, I found that the author comprehends a host of species in his genera which do not possess the characters assigned respectively to them." From which it is manifest that *he*, and not Godart, as elsewhere so reprehensibly quoted, to the confusion of the student, is the proposer of the various generic names to which I have referred in the *Geometridæ*: the same remark will apply to the references to Treitschke, he having in like manner undertaken the completion of the *Schmetterlinge von Europa* of his friend Ochsenheimer.

† Sp. 1. *vibicaria*. *Alis flavescentibus; anticis puncto strigisque tribus purpureis, internâ obsolete.* (Exp. alar. 1 unc. 1 lin.)

Ph. Ge. *vibicaria*. *Linné*.—*Ptychopoda?* *vibicaria*. *Steph. Catal. part ii. p. 153. No. 6735.*

Wings yellowish; the anterior with a dot and three strigæ purple, the inner one the most obscure; the posterior also with a dot, a single transverse fascia, and the margin purple: antennæ pale.

Caterpillar yellowish-white, with black spots on a pale dorsal line, with the head, mouth, and legs white: it feeds on the broom and mountain hair-grass (*Aira montana*).

The only examples I have seen of this beautiful species are in Mr. Swainson's cabinet: of their locality he is not aware.

GENUS CXCVI.—ASPILATES, *Treitschke*.

Palpi rather long, densely squamous, the terminal joint exposed, acute; triarticulate, the basal joint rather stout, curved, second subcylindric, terminal slender, elongate-ovate: *maxillæ* short, distinct. *Antennæ* short, bipectinated to the apex in the males, the pectinations very short on the three or four terminal joints; somewhat serrated beneath and thickened at the base in the females: *head* rather broad: *eyes* prominent: *thorax* slender, velvety: *wings* a little expanded during repose, with the hinder margin entire and rounded, all of nearly similar form; anterior traversed diagonally by one or more strigæ, the posterior one arising at or near the anterior angle; posterior with a faint striga: *abdomen* rather long and slender, shorter and stouter in the females: *legs* very long. Larva with 10 legs, somewhat attenuated anteriorly, with two small elevations on the last segment: pupa in a web amongst leaves.

The insects of this genus may be known by the integrity of the hinder margins of their wings (all of which are of nearly similar bulk) which are usually of a pale or flavescent hue, with the anterior angle of the primary ones acute, and the disc having one or more very oblique strigæ, of which the outer one usually arises at or close to the apex: the palpi are long, with the terminal joint exposed and acute, the legs very long, and the antennæ short and bipectinated to the apex.

† Sp. 1. *purpuraria*. *Alis luteis, margine anticarumque fasciis duabus purpureis.* (Exp. alar. 1 unc. 2 lin.)

Ph. Ge. *purpuraria*. *Linné*.—*As. purpuraria*. *Steph. Catal. part ii. p. 128. No. 6530.*

Wings pale yellow, with the margin of all, and two fasciæ on the anterior, purple.

Caterpillar green, with the back brown, with a pale line: it feeds on the oak,

blackthorn, and bistort (*Polygonum aviculare*):—the imago probably appears about August.

The only indigenous examples of this elegant species which I have seen are also in Mr. Swainson's collection, but of their locality he can give me no information.

Sp. 2. *citraria*. *Alis anticis flavis, atomis strigisque duabus punctoque interjecto fuscis, posticis albidis, fasciâ maculâque medio-fuscis*. (Exp. alar. 1 unc. 1—6 lin.)

Ge. *citraria*. *Hübner*.—As. *citraria*. *Steph. Catal. part ii. p. 129. No. 6531*.

Anterior wings yellow or luteous, a little freckled with fuscous, with an incurved fuscous striga at the base, and a broader repanded one behind the middle, placed very obliquely; between these is a round fuscous dot placed towards the costa: posterior paler, with a spot in the middle; and a waved striga towards the hinder margin pale fuscous.

Extremely variable in size and in colour, and in the intensity, breadth, and distance of the strigæ; in some examples the latter are entirely obliterated; others have them of a bright ferruginous hue, and the freckles are of the same tint, and the costa of the anterior wings is also occasionally ferruginous.

Not uncommon in certain places in June and August, frequenting clover-fields, and flying by day: I have taken several examples both at Darenth and near Hertford; it also occurs in the New Forest.

Sp. 3. *gilvaria*. *Alis anticis sulphureis, strigâ præobliquâ, puncto medio atomisque fuscis*. (Exp. alar. 1 unc. 3—5 lin.)

Ge. *gilvaria*. *Wien. Verz.*—As. *gilvaria*. *Steph. Catal. part ii. p. 129. No. 6532*.

Anterior wings pale sulphureous, freckled throughout with pale fuscous, with a larger fuscous spot on the disc towards the costa, and a very oblique straight fuscous striga arising from the apex of the costa, but not extending to the inner margin of the wing: posterior wings paler, with an obscure fuscous spot in the middle, and a pale transverse striga towards the hinder margin.

In some examples the oblique striga on the anterior wings is nearly obliterated, in others it becomes so wide as to be fasciæform.

Caterpillar greenish-ash, striped with ferruginous, and a dorsal lateral line: head yellowish-white: it feeds on the millefoil (*Achillea Millefolium*):—the imago appears in August.

Local, but abundant where found; it has been taken at Rochester; but in some grassy fields to the east of Dover Castle (near the spot where I had the pleasure of capturing *Pontia Daplidice*) it occurs in the utmost profusion.

Sp. 4. *respersaria*. *Alis cinereis, atomis fuscis undique adpersis, strigis tribus seu quatuor fuscis.* (Exp. alar. 1 unc. 3—6 lin.)

Ge. *respersaria*. *Hübner*.—As. *respersaria*. *Steph. Catal. part ii. p. 129. No. 6534.*

Wings cinereous or whitish, more or less thickly freckled with fuscous, the anterior with three, and occasionally four, oblique fuscous strigæ; the posterior with three transverse ones; the position of the strigæ is very variable; in some examples there are only three equidistant ones; sometimes the two anterior are united; again there are occasionally three equidistant ones and a fourth repanded one, arising at the apex of the third on the costa: in the posterior wings the central striga is generally the most powerful, and the outer one usually approximates towards it: the strigæ again vary much as to intensity, and in rare instances some of them are obliterated.

Caterpillar yellowish, with a brownish lateral stripe, and black dots and two ashy-grey ones on the back; it feeds on the broom:—the imago appears about the middle of June, and frequents heaths where broom occurs.

Not uncommon on heaths within the metropolitan district where broom abounds, especially near Coombe-wood, also in the New Forest near Brockenhurst.

GENUS CXCVII.—PHASIANE, *Duponchel*.

Palpi long, horizontally porrected, very squamous: the terminal joint exposed, acute; triarticulate, the basal joint rather stout, curved; second shorter, slender; terminal minute, acuminate; *maxillæ* long. *Antennæ* slightly bipectinated in the males almost to the apex, which last is pubescent within; in the females obscurely serrated: *head* with a conical projection in front: *thorax* slender: *wings* entire, with the hinder margins rounded, slightly expanded during repose; the anterior with the apex acute, with a dot between two transverse nearly parallel strigæ, and an oblique line at the apex: *abdomen* elongate and slender in the males; shorter and stouter in the females: *legs* moderate.

Phasiane—a name perhaps too near Phasianus to be tolerated—according to Duponchel may be known by having the anterior wings with a dot between two transverse, nearly straight, and almost parallel lines; with the palpi pointed and extending beyond the forehead: to which may be added that the antennæ of the males are not pectinated to the apex, and the legs are of moderate length, by which last characters it differs from *Aspilates*.

Sp. 1. *plumbaria*. *Alis cinereo-plumbeis, fasciâ mediâ obscuriore, striâ apicis oblique fuscâ.* (Exp. alar. 1 unc. 3—5 lin.)

Phal. plumbaria. *Fabricius.*—*As. plumbaria.* *Steph. Catal. part ii. p. 129. No. 6533.*

Wings pale brownish or lead-colour, rather thickly sprinkled with extremely minute fuscous atoms, with a faint fuscous striga at the base, a second straighter one before the middle, edged outwardly with fulvous, and a third oblique one behind, slightly flexuous, bordered entirely with fulvous; between these two short strigæ, which approximate on the inner margin, the wing is in general rather darker, and there is a black spot towards the costa; at the apex is an oblique fuscous streak, at the termination of which an obscure undulated whitish line exists: cilia fuscous: posterior wings paler, with a transverse fuscous or whitish striga.

Extremely variable both in colour and in the dispositions of the strigæ; in some examples all the wings are of an uniform fuscous, with a darker central fascia on the anterior, and others are all of a whitish ash; the strigæ sometimes approach close together, at others they are distant.

Very abundant on heaths by the sides of woods in several places within the metropolitan district, especially at Coombe and Darenth Woods, and near Hertford. “Epping.”—*Mr. Doubleday.* “Baronwood.”—*T. C. Heysham, Esq.* “Meldon-park.”—*G. Wailes, Esq.*

GENUS CXCVIII.—LARENTIA, *Treitschke.*

Palpi rather long, approximating at the apex, and forming a sort of pointed beak, densely squamous; triarticulate; the basal joint curved; second shorter, subacuminate; third minute, globose: *maxillæ* long. *Antennæ* of the males slightly bipectinated to the apex, the pectinations diminishing to the apex; of the females obscurely serrated within: *head* small, rounded: *eyes* small, globose: *thorax* slender: *wings* partially expanded during repose, entire, all of nearly equal size; anterior acute, with a central transverse band, composed of several parallel lines, more or less undulated, and generally with an oblique dark streak at the apex: *abdomen* rather slender; of the males subclavate; of the females stouter and acute. Larva with 10 legs, slender, stouter posteriorly; head small; pupa subterranean.

Ge. cervinata of Hübner being the type of the genus *Larentia* of Treitschke, I am at a loss to comprehend Duponchel's transposition of the name to another genus (corresponding with the genera *Scotosia* and *Triphosa* of my Catalogue), in which not a single example of the *Larentiæ* of Treitschke occurs, which is contrary to all precept; but notwithstanding this inconsistency of Duponchel, he has recently been followed by Mr. Curtis in his,

so-called, *corrected* list of British insects; in which the *same name* is also employed to designate the present genus, as well as the two above referred to, and which are arranged by him in a totally different situation, next to the genus *Lozogramma*. The true *Larentiæ*, embracing part of the *Euboliæ* of Duponchel, may be distinguished by having the anterior wings acute, as in several of the foregoing genera, and traversed in the middle by an unsolid band, composed of several parallel lines, more or less undulated, with an oblique streak at the apex, and the palpi long, porrected in form of a beak, and acute.

Sp. 1. *cervinata*. *Alis anticis fusco-ferrugineis, fasciâ mediâ obscuriore ad margines grisescente, strigâque posticâ albâ undulatissimâ, posticis fuscescentibus.* (Exp. alar. 1 unc. 8—11 lin.)

Ge. *cervinata*. *Wien. Verz.*—*La. cervinata*. *Steph. Catal. part ii. p. 129. No. 6535.*

Anterior wings rusty-brown, the base darker edged with a white striga, towards the middle a broad dark-brown fascia, in which are several darker undulated strigæ, and the edges are griseous-white; near the hinder margin is a very small waved whitish striga, and at the apex an obscure darkish line; behind the whitish striga the wings are darker, and the cilia are fuscous with darker spots: posterior wings brownish, with a darker striga in the middle, and some obsolete paler ones on the hinder margin.

The fascia on the anterior wings varies exceedingly in its width; in some examples it occupies nearly one-third of the wings, while in others (though very rarely) it is so much attenuated behind as almost to be divided towards the inner margin of the wings; all intermediate widths occur.

Caterpillar dull-green, with yellowish margins to the segments, the sides yellowish; also the anterior legs yellow: it feeds on the mallow:—the imago appears about the middle of October.

Not very common in the south of England, occurring late in the season: I have taken it at Hertford and in the vicinity of London; it also occurs at Darent and Coombe Woods. “Epping.”—*Mr. Doubleday*. “Newcastle, Meldon-park, &c.”—*G. Wailes, Esq.* “Raehills, common.”—*Rev. W. Little*.

Sp. 2. *Chenopodiata*. *Alis anticis fulvo-ferrugineis, strigis fasciâque compositâ medio, in quâ puncto nigro, lineolâque obliquâ apicis, saturatioribus.* (Exp. alar. 1 unc. 2—4 lin.)

Ph. Ge. *Chenopodiata*. *Linné.*—*La. Chenopodiata*. *Steph. Catal. part ii. p. 129. No. 6536. Harris A. pl. 33. f. n.*

Anterior wings rusty-fulvous or slightly plumbous, with various obsolete undulated strigæ before the middle, then a broad repanded fascia, composed

of several dusky strigæ, its centre pale, and having a black dot towards the costa; behind this are other obsolete darker repanded strigæ, with an oblique dusky streak at the apex, terminating in an obsolete pale waved striga; the space between which and the hinder margin is dark rusty-fuscous: posterior wings fuscous at the base, brighter behind the middle, with from one to three dusky transverse strigæ; but in the female they are paler throughout, but similarly strigated: cilia fuscous.

Rather variable as to tint and the width of the central fascia of the anterior wings; and the strigæ on the posterior vary considerably.

Caterpillar yellowish-green with darker spots; it feeds upon grasses, especially the *Bromus arvensis*:—the imago appears at the end of June, and again in August.

Extremely abundant in some places within the metropolitan district, especially in the neighbourhood of Hertford and near Ripley. “Durdar, King-moor, &c.”—*T. C. Heysham, Esq.* “Alderley, Cheshire.”—*Rev. E. Stanley.* “Epping.”—*Mr. Doubleday.* “Swaffham Prior, Cambridgeshire.”—*Rev. L. Jenyns.* “Scarborough.”—*W. Bean, Esq.* “Meldon-park and Tynemouth, very abundant.”—*G. Wailes, Esq.*

Sp. 3. *bipunctaria*. *Alis anticis albido-cinereis fusco-undatis, fasciâ mediâ obscuriore in quâ punctis duobus nigris.* (Exp. alar. 1 unc. 3—5 lin.)

Ph. *bipunctaria*. *Fabricius*.—*La. bipunctaria*. *Steph. Catal. part ii. p. 129. No. 6537.*

Anterior wings cinereous, with two or three darker strigæ before the middle, then an unsolid, crenate, oblique fascia in the middle, composed of undulated strigæ, in which towards the costa are two contiguous black dots, placed transversely; between the fascia and the hinder margin is generally a transverse striga of fuscous spots, followed by a whitish continuous narrow waved striga, and behind this a row of fuscous or black dots on the hinder margin itself: posterior wings paler, with obsolete pale strigæ towards the hinder margin: cilia of all cinereous.

Like its congeners, this species varies a little in colour, and in the width and solidity of the transverse fasciæ on the anterior wings.

Caterpillar ashy-gray, with pilose dorsal and lateral lines, the head small: it feeds on the red darnel (*Lolium perenne*), trefoil, and other plants:—the imago appears about the beginning or middle of July, frequenting chalky places.

Somewhat local, but not very rare: it abounds in the fields near Darenth-wood, also near Hertford. “Matlock.”—*Rev. F. W. Hope.* “Tynemouth.”—*G. Wailes, Esq.*

Sp. 4. *multistrigaria*. *Alis cinerascèntibus, strigis fasciolisque numerosis saturatioribus.* (Exp. alar. 1 unc.—1 unc. 4 lin.)

Ge. multistrigaria. *Haworth*.—*La. multistrigaria*. *Steph. Catal. part ii. p. 130. No. 6538.*

Wings pale cinerascens, slightly glossy, the anterior thickly covered with numerous darker strigæ and fasciæ, composed, as it were, of fuscous clouds and black spots, the band in the middle of the wings being most conspicuous, and having a black dot within it towards the costa; on the hinder margin is a row of geminated black dots: posterior wings whitish, with two darker evanescent strigæ on the middle, the hinder margin with a row of geminated black dots: cilia cinereous.

Slightly variable in tint, some examples being of a darker hue than others, and more distinctly fasciated. I possess one specimen of a very dark fuscous-ash, spotted with white; and another of a pale ashy-white, with a very distinct unsolid central fascia, as in the other species of this genus.

Although this insect differs a little from the other species of this genus, the close approximation of its female to that of *Cidaria didymata*, and of some of its varieties to those of *La. bipunctaria*, seem to indicate that this is its true location;—it certainly cannot associate with *Oporabia dilutata*, with which it has lately been united! inasmuch as the antennæ of the male are pectinated, whereas in *Oporabia* they are but slightly ciliated.

Rare: found on heaths near London in March: I have several times taken it on Hampstead-heath. “Epping.”—*Mr. Doubleday*.

GENUS CXCIX.—CIDARIA, *Treitschke*.

Palpi short, densely squamous, the terminal joint concealed, obtuse; triarticulate, the two basal joints of equal length, the first curved, the second straight, a little attenuated, terminal minute, subglobose: *maxillæ* rather long. *Antennæ* rather short, each joint producing, in the males, a pubescent branch on each side, excepting towards the apex, which is simple, and at the base; in the females simple, and slightly pubescent within: *head* small: *eyes* globose: *thorax* slender: *wings* forming a triangle during repose, subtrigonal, entire, the anterior with the hinder margin slightly acute, traversed with a broad central fascia composed of waved lines, and sometimes abbreviated, and towards the hinder margin, near the apex, are usually two conspicuous, nearly united spots: *abdomen* slender, obtuse in the males, conic and stouter in the females. Larva with 10 legs, slender, smooth, naked, and generally spotted; head rounded: pupa in a folliculus among leaves.

The species of *Cidaria* may be known from the foregoing insects by their comparatively shorter wings, which have their hinder margin more rounded and entire, the anterior not very acute at the apex, and adorned with a central fascia, in which are

several waved darker strigæ; and on the hinder margin usually a dark geminated spot, anterior to a pale waved striga: the palpi are shorter and more obtuse; the antennæ less pectinated. The genus is so intimately allied to the foregoing, that Duponchel unites the two under the name Eubolia.

Sp. 1. didymata. *Alis cinereis aut albidis nebulosis, anticis fasciis strigisque interruptis fuscis albisque, maculâ didymâ posticâ fuscâ.* (Exp. alar. 1 unc.—1 unc. 2 lin.)

Ph. Ge. didymata. *Linné.*—Ci. didymata. *Steph. Catal. part ii. p. 130. No. 6539.*

Cinereous, slightly shining; anterior wings clouded, with interrupted fuscous and white strigæ, the former colour condensed into a somewhat broad fascia in the middle of the wings, and predominating at the base; towards the hinder margin is a distinct bilobed or double brown spot, from the superior lobe of which a blackish oblique streak arises and extends to the apex, but very indistinct in the male; parallel with the hinder margin, posterior to the spots, is a distinct waved pale line; posterior wings fuscous, with the margin darker, and one or two pale transverse strigæ across the disc. Female nearly white, with the outer edges of the central fascia on the anterior wings, the didymated spots, and the apical streak more conspicuous than in the male, and the fuscous strigæ paler.

Variable in colour, arising from the distance or approximation of the fuscous strigæ; in some cases the anterior wings are trifasciated with fuscous, and in others of a nearly uniform tint: the female is sometimes of a deep ashy-brown.

Local, but in plenty where found; it occurs in the utmost profusion in a damp lane near Ripley, and is also abundant near Westerham in Kent, and in Devonshire: the larva is said to feed on the willow. “Weston-on-the-green.”—*Rev. A. H. Matthews.* “Alderley, Cheshire.”—*Rev. E. Stanley.* “Raehills, common.”—*Rev. W. Little.* “Newcastle, Tynemouth, &c.”—*G. Wailes, Esq.*

Sp. 2. munitata. *Alis fusco-cinereis aut albidis anticis basi fasciâque medio extus obtusè unangulatâ rufo-fulvis.* (Exp. alar. 1 unc. 1—3 lin.)

Ge. munitata. *Hübner.*—Ci. munitata. *Steph. Catal. part ii. p. 130. No. 6540.*

Ph. Ge. tristrigaria. *Don. xiii. pl. 461. f. 2?*

Ashy-brown or whitish; anterior wings with the base and a broad central fascia rufo-fulvous, the latter edged with a dark fuscous line, and with a few fuscescent undulated ones on its disc, which latter has a black dot edged with whitish near the costa, and a whitish spot behind; the outer margin of the fascia is obtusely unangulated, the rest of the wings is faintly strigulated with

dark cinereous, with a distinct pale waved striga on the hinder margin, in which are two faint dusky spots and an oblique streak reaching to the apex; and on the costa are two or more dusky or black marks: posterior wings fuscous, with paler strigæ.

Very variable in the width of the central fascia on the anterior wings; in one of my specimens it is so much coarctate towards the inner margin as nearly to be divided into two spots placed transversely.

The caterpillar is said to feed on the wormwood (*Artemisia Absinthium*):—the imago appears towards the end of June.

Apparently not uncommon in the north of England; but rare in the vicinity of the metropolis: it is said to have been found near Westerham. “Epping.”—*Mr. Doubleday*. “Flisk.”—*Rev. J. Fleming*. “Meldon-park.”—*G. Wailes, Esq.* “Netherton.”—*T. C. Heysham, Esq.*

Sp. 3. unidentaria. *Alis rufo-ochraceis, anticis fasciâ parvâ basi, aliâque medio latâ invenustè dolabriformi punctoque postico didymo nigris.* (Exp. alar. 11—13 lin.)

Ge. unidentaria. *Haworth*.—Ci. unidentaria. *Steph. Catal. part ii. p. 130. No. 6541. Albin, pl. xcvi. f. c—h.*

Rufo-ochraceous; anterior wings with a slender dusky striga at the base, and a broad fascia in the middle placed rather obliquely, having the outer margin with two salient lobes, which are a little crenate, and being very much attenuated towards the inner margin of the wings; on this fascia are several darker undulated lines; towards the tip of the hinder margin are two black spots, exterior to which is a pale waved striga.

Also variable in the form and width of the central fascia, and slightly in colour.

Caterpillar dull green or ash-colour, with a dusky lateral line on the anterior segments and a pale one on the rest, which have a dusky spot:—it feeds on the bedstraw (*Galium verum*): the imago appears in the beginning of June, and a second time in August.

Very abundant in some places near London, especially at Coombe and Darenth Woods, and near Hertford and Ripley. “Belle-vue, Cumberland.”—*T. C. Heysham, Esq.* “Weston-on-the-green.”—*Rev. A. H. Matthews.*

Sp. 4. quadrifasciaria. *Alis subfuscis, fasciâ parvâ basi, aliâque medio unangulatâ nigrâ medio dilutiore puncto atro, maculâ didymâ sesquialterâ posticâ fuscâ.* (Exp. alar. 1 unc. 2—4 lin.)

Ph. Ge. quadrifasciaria. *Linné*.—Ci. 4-fasciaria. *Steph. Catal. part ii. p. 130. No. 6542.*

Wings somewhat fuscous with a fulvous tinge, with a faint striga at the

base, and a broad black one in the middle, with its centre paler, and having a black dot towards the costa, the outer margin strongly unangulated and bordered with a fine whitish line; between this and the hinder margin is a faint undulated whitish striga, within which is a geminated fuscous spot, as in the other species of this genera, but very faint; between which and the apex of the wing, on the hinder margin is a subquadrate darker spot: posterior wings fuscous, with one or more transverse pale strigæ.

Variable in the form and intensity of the central fascia on the anterior wings: in some examples the dark varied streaks of which it is composed are very distinct, with the central space, especially towards the costa, nearly as pale as the ground of the wings, with the central black dot very large and conspicuous; in others it is nearly solid: it is occasionally very broad, and sometimes considerably attenuated towards the inner margin.

Caterpillar light-brown, with dirty-grey streaks and a few black spots; it feeds on the plantain, dandelion, &c.:—the imago appears towards the middle or end of July.

Somewhat rare: I have however taken the insect several times at Darent, and occasionally at Hertford and Ripley: it has also been found in Norfolk and Suffolk. “Orton.”—*T. C. Heysham, Esq.*

Sp. 5. *ferrugata*. *Alis anticis purpureo-rufo-fasciatis, strigis undatis marginæ externo albidis, maculâ didymâ atrâ.* (Exp. alar. 1 unc.—1 unc. 1 lin.)

Ph. Ge. *ferrugata*. *Linné*.—*Ci. ferrugaria*. *Steph. Catal. part ii. p. 130. No. 6543.*

Wings whitish, or cinereous, fasciated with purplish-red, the fasciæ extremely variable; the base is generally purplish, followed by a narrow striga of the same, and then by a broad, more or less solid fascia, and occasionally tinted with fuscous, and bilobed on the outer margin, which, as well as the inner edge, is bordered by a whitish space, in which is a slender waved fuscous striga; beyond this is an irregular purplish-red fascia, shaded off externally into the ashy or whiter border of the wing, in which is a double brown or black spot, and a more or less evident undulated white striga, and on the outer margin itself are some black dots, sometimes united with a faint striga: posterior wings fuscous, more or less transversely striated with waved cinereous strigæ.

Extremely variable both in the colour of the fasciæ and in their width, the central one being frequently broken up into several narrow ones, sometimes so wide as to occupy above half the surface of the wings: in some instances it is of a clear immaculate uniform hue, while in others it is transversed with much darker or paler strigæ; but in all cases the abdomen has a double row of black dots down the back.

Very abundant in May and August within the metropolitan district : also found in the New Forest, Devonshire, &c. "Epping."—*Mr. Doubleday*. "Rae hills, common."—*Rev. W. Little*. "Wes-ton-on-the-green."—*Rev. A. H. Matthews*. "New Town."—*T. C. Heysham, Esq.*

Sp. 6. latentaria. *Cinerea nigro pulverulenta, strigis undatis fuscescentibus, et albidis, fasciâ medio saturatiore, puncto atro.* (Exp. alar. 1 unc. 1—3 lin.)
Zerynthia! * latentaria. *Curtis*, vii. pl. 296.—*Ci. latentaria. Steph. Catal. part ii. p. 130. No. 6545.*

Cinereous; minutely freckled with black; anterior wings slightly ochraceous, with several waved strigæ, with an indistinct fascia at the base, and a broader one in the middle, edged on both sides with a whitish line, crenate without, and with a small black dot towards the costa: posterior wings dusky-ash, with several undulated paler strigæ towards the hinder margin, which is darkest, and a black dot near the middle; on the hinder margin of all is a series of geminated black dots: the cilia are ashy, spotted with fuscous.

Apparently not uncommon in some parts of the north: I have received many examples from the vicinity of Ambleside.

Sp. 7. Salicata. *Alis anticis albo cinereoque variis, fasciis strigisque obsoletis fuscescentibus.* (Exp. alar. 1 unc. 1 lin.)
Ge. Salicata. *Hübner*.—*Ci. Salicaria. Steph. Catal. part ii. p. 130. No. 6544.*

Lead-en-gray; the anterior wings varied with cinereous and white, with obsolete fuscescent strigæ, of which the central one is broadest, with its middle paler, and having a small black spot towards the costa; behind this fascia is an undulated whitish line, adjoining which, towards the apex, is a faint duplex fuscescent spot: the cilia are pale fuscous, with darker spots, with a row of very minute black spots at the base. The posterior wings are pale cinereous, with paler transverse waved strigæ.

The caterpillar feeds on the willow; and the imago appears about the end of June.

Closely allied to the preceding insect.

* Zerynthia was proposed, in 1816, by Ochsenheimer, for a genus of *Lepidoptera*, previously (in 1808) characterized by him as a section in his *Schmetterlinge*, vol. i. pt. 2. p. 124. containing *Papilio Rumina* Linné and its congeners, and republished by Mr. Children, in the *Philosophical Magazine* for 1829:—notwithstanding which we have the same name again employed to designate the present genus in the same order in 1830, in a work which, from its pretensions, ought to give the most correct information with regard to genera and their terms.

Also found in the north of England, but less abundantly than the foregoing.

- Sp. 8. *miaria*. *Alis anticis late viridibus, fasciis duabus viridi-fuscescentibus albo marginatis, maculisque marginalibus atris.* (Exp. alar. 1 unc.—1 unc 1½ lin.)
 Ge. *miaria*. *Wien. Verz.*—Ci. *miaria*. *Steph. Catal. part ii. p. 131. No. 6546.*

Anterior wings of a rich green, with a small darker fascia at the base, and a second broader one in the middle, bordered on each side with a narrow black striga and white margin; beyond this is an evanescent undulated whitish striga; on the costa are three larger, somewhat triangular black spots placed at the origin of the respective strigæ, three minute ones at the apex of the costa, a black streak, placed obliquely near the tip of the hinder margin, and a subquadrate one, frequently with a pale centre on the middle of the inner edge at the termination of the central fascia: on the hinder margin of the wings is an interrupted black line, and the cilia are pale, interrupted with fuscous: posterior wings fuscous, with pale transverse strigæ.

I possess a specimen having the black spot at the base of the costa very large, and the other two united, forming a large black blotch; on the central fascia are also four distinct black rings, and the spot on the inner margin of the wing extends to twice its usual dimensions transversely.

Duponchel, who has given an admirable figure of this insect, places it in the following genus, notwithstanding its pectinated antennæ.

Very common in woods and lanes throughout the metropolitan district, and in other parts. “Epping.”—*Mr. Doubleday*. “Rae-hills, abundant.”—*Rev. W. Little*. “Midgley-moor.”—*Mr. Gibson*. “Weston-on-the-green.”—*Rev. A. H. Matthews*. “York and Newcastle.”—*G. Wailes, Esq.* “Black Hall Wood.”—*T. C. Heysham, Esq.*

- Sp. 9. *olivata*. *Alis olivaceo-viridi alboque variis, fasciâ basi aliâque medio insolidâ saturatioribus albo marginatis.* (Exp. alar. 1 unc.—1 unc. 2 lin.)
 Ge. *olivata*. *Wien. Verz.*—Ci. *olivaria*. *Steph. Catal. pt. ii. p. 131. No. 6547.*—*Ph. pectinitaria*. *Don. xiv. pl. 479. f. 1.*

Greenish; anterior wings varied with olivaceous-green and white, with a small dull-green fascia at the base, a second broader one in the middle, crenate on both sides, and very much attenuated towards the inner margin, with a small black dot towards the costa: behind the fascia is a whitish, irregularly waved striga; the hinder margin is of a fine green, with several black dots, of which two are generally more conspicuous than the rest, bordered externally with white; on the margin is an interrupted black line, and the cilia are clouded with black: posterior wings fuscous, with a darker central spot, and some obsolete pale transverse strigæ.

Much less abundant than the last in the neighbourhood of the metropolis, being very local; but where found it occasionally appears in profusion: I have met with several examples at Darenth-wood: it likewise occurs in the New Forest. “Ræhills, abundant.”—*Rev. W. Little*. “Weston-on-the-green.”—*Rev. A. H. Matthews*.

Sp. 10. *montanata*. *Alis anticis albis, fasciis duabus fuscis, puncto subocellari atro*. (Exp. alar. 1 unc. 3—5 lin.)

Ge. *montanata*. *Wien. Verz.*—Ci. *implicaria*. *Steph. Catal. pt. ii. p. 131. No. 6548*.

Anterior wings white or whitish, with a small incurved or angulated dusky or cinereous fascia at the base, a broad unsolid fuscous or fulvescent-brown one, bordered on each side with fuscous, with the hinder edge two- or three-angled, and a large somewhat ocellated black spot on the disc towards the costa; the hinder margin is generally somewhat suffused with cinereous, with an undulated white or pale striga, and an interrupted fuscous line on the extreme edge: cilia spotted with fuscous: posterior wings whitish, more or less fasciated with fulvous. Female generally whiter than the male.

Variable as to the width and colour of the central fascia on the anterior wings: it is sometimes very broad, and bears three or four deep-black, or fuscous, waved strigæ; or it is white in the middle, especially on the costa; sometimes fulvescent or nearly black: in some instances it is divided, and in rare cases a patch on the costa is all that exists, the inner portion being completely obliterated.

Caterpillar fuscous, with white lateral lines; it feeds on the primrose:—the imago appears about the middle of June.

One of the most abundant of the indigenous Geometridæ throughout the metropolitan district. “Ræhills.”—*Rev. W. Little*. “Weston-on-the-green.”—*Rev. A. H. Matthews*. “Rose Castle.”—*T. C. Heysham, Esq.* “Epping.”—*Mr. Doubleday*.

Sp. 11. *fluctuata*. *Alis albidis aut cinereis, basi fasciisque duabus abbreviatis costalibus fuscis*. (Exp. alar. 1 unc.—1 unc. 3 lin.)

Ph. Ge. *fluctuata*. *Linné.*—Ci. *fluctuata*. *Steph. Catal. pt. ii. p. 131. No. 6549. Albin. pl. xcix. f. e—h*.

Wings whitish or cinereous, with a somewhat triangular fuscous patch at the base, a broad subrhombic one, in which is a black dot, on the costa in the middle, emarginated on both sides, and a smaller one towards the apex, on the outer margin of which a whitish undulated striga arises, within which is placed the ordinary geminated spot common to the genus: on the hinder margin is an interrupted dark line; the cilia are clouded with fuscous: posterior wings of a darker hue, with pale transverse strigæ.

Extremely variable; sometimes the wings are of a darker cinereous, with the

central fascia continuous to the inner margin, where it becomes considerably attenuated, and in some cases divided so as to form two separate transverse spots; in others the outer margin is biangulated, and the inner entire: in rare instances the abbreviated central fascia is small and suboval—this variety forms the *Ge. costovata* *Haworth*.—*Steph. Catal. l. c. No. 6550*:—and occasionally the ground colour of the wings is slightly ochraceous, with the markings of an intense black, and the posterior wings white, with fuscous strigæ.

Caterpillar greenish; paler above, with black dots:—it feeds on the horse-radish, cabbage, plum, alder, &c.:—the imago appears towards the end of April, and may be found nearly till October, frequenting gardens.

Also extremely abundant throughout the metropolitan district. “King-moor, Hill-ends, &c.”—*T. C. Heysham, Esq.* “Newcastle, &c. common.”—*G. Wailes, Esq.* “Weston-on-the-green.”—*Rev. A. H. Matthews.*

Sp. 12. *propugnata*. *Alis anticis albido-cinereis, maculâ basi fasciâque medio rubris hâc utraq[ue] strigâ geminatâ fuscâ.* (Exp. alar. 10—12½ lin.)

Ge. propugnata. Wien. Verz.—*Ci. propugnata. Steph. Catal. part ii. p. 131. No. 6551.*—*Ph. Ge. lynceata. Don. x. pl. 349. f. 3.*

Anterior wings ashy-white, with the base rufous, a broad rufous fascia in the middle, bordered on each side with a double fuscous or black striga, and deeply crenate on the hinder margin; behind this, on the costa, is a reddish spot, and on the anterior edge thereof a very obscure striga of dusky spots, chiefly indicated on the nervures, cinereous, and on the posterior a less obsolete undulated white one; on the hinder margin is an interrupted black line: posterior wings ashy-white, with darker transverse strigæ, and an interrupted black line on the margin: all the ciliæ ashy, with fuscous clouds. The fascia on the anterior wings varies in width and in colour, as in its congeners.

This and the preceding insect have the antennæ but very little pectinated, especially the present species: but nevertheless I consider this as its best location.

Not very abundant near London: it is found occasionally near Hertford, and in Coombe and Darenth Woods; also in Devonshire and the New Forest. “Newcastle.”—*G. Wailes, Esq.* “Epping.”—*Mr. Doubleday.*

GENUS CC.—HARPALYCE *miki*.

Palpi short, acute, porrected upwards, very squamous, terminal joint not concealed; triarticulate, the basal joint curved, second as long, slightly attenuated, terminal elongate-ovate: *maxillæ* long. *Antennæ* simple in both

sexes, but ciliated within in the males: *head* small: *eyes* large, globose: *thorax* slender, slightly lobate: *wings* short, triangular during repose; anterior trigonate, with a more or less solid band in the middle, and an obscure one at the base, the outer margin more or less angulated; towards the apex of the hinder margin generally a didymated spot, or the rudiments of one; the hinder margin itself entire: posterior rounded, not very ample: *abdomen* short, very slender, with a large tuft at the apex, in the males, stouter and very obtuse in the females. Larva slender, naked, not tuberculated, generally with paler lateral lines: pupa folliculated.

The beautiful insects comprised in this genus, which is chiefly composed of the Cidariæ of Treitschke, may be known by the brevity of the anterior wings, which have their hinder margins entire, and bear a broad somewhat dolabriform central fascia, in which are generally darker undulated strigæ and a black dot, as in the preceding genus, from which, however, it differs by having the male antennæ not pectinated, but simple, with a slight pubescence within: they have also, like the true Cidariæ, a didymated spot towards the apex of the hinder margin of the anterior wings.

Sp. 1. *fulvata*. *Alis anticis flavo-fulvis, fasciâ angustâ basi, alterâque latâ unangulatâ brunneo-fulvis, maculâque conicâ flavâ apicis.* (Exp. alar. 11—13 lin.)

Ge. *fulvata*. *Wien. Verz.*—Ha. *fulvata*. *Steph. Catal. part ii. p. 131. No. 6552.* Clouded Yellow. *Harris, Aur. pl. 35. f. 1.*

Anterior wings fulvous-yellow, with a slender fulvous-brown fascia at the base, and a broad one in the middle, the latter a little sinuated within, and strongly unangulated without; attenuated towards the inner margin, and frequently pale fulvous on the costa: towards the apex of the wings is a conical yellow spot; terminating behind in an oblique pale fuscous streak, near which is a fulvescent cloud: posterior wings whitish-yellow, immaculate: cilia of all luteous, the anterior with fuscous spots.

The fascia varies slightly, and the base of the wing is sometimes brown.

Caterpillar greenish, whitish yellow above, with a broad whitish dorsal line: it feeds on the rose:—the imago appears about the end of June.

Not very abundant, but nevertheless somewhat common in thick shrubby lanes and on the borders of woods within the metropolitan district. “Rockcliff, Black-hall, &c.”—*T. C. Heysham, Esq.* “Epping.”—*Mr. Doubleday.* “Hartley, Newcastle, &c.”—*G. Wailes, Esq.* “Raehills.”—*Rev. W. Little.* “Weston-on-the-green.”—*Rev. A. H. Matthews.*

Sp. 2. *ocellata*. *Alis albidis, fasciis duabus cæruleo-fuscescentibus maculâque apicis ocellari didymâ.* (Exp. alar. 1 unc. 1—2 lin.)

Ph. Ge. *ocellata*. Linné.—Ha. *ocellata*. Steph. Catal. part ii. p. 132. No. 6553. Wilkes's Designs, pl. 10. f. 3.

Wings whitish; anterior with a triangular fuscous fascia at the base, and a broader subdolabriform one in the middle of a purplish- or bluish-black, having a conspicuous black dot within, towards the costa; between the fasciæ are some ashy clouds, and on the costa, behind the second fascia, are some slightly curved cinereous strigæ; adjoining to which are two black, somewhat ocellated spots, with a pale waved line, and the hinder margin beyond slightly suffused with fuscous: posterior wings with a black dot; the hinder margin slightly fuscescent: cilia fuscous.

It varies in being much more shaded with cinereous between the fasciæ, and also in having the fasciæ of a broader or narrower width, and one of the didymated spots is sometimes deficient.

Caterpillar brown, with a white lateral line: it feeds on the *Galium sylvaticum*:—the imago appears in the beginning of June, and towards the end of August.

Common in some places near London, especially near Ripley: also taken at Coombe, Birch, and Darent Woods, and near Hertford: in the New Forest and in Devonshire. “Durdar.”—*T. C. Heysham, Esq.* “Weston-on-the-green.”—*Rev. A. H. Matthews.* “Tynemouth.”—*G. Wailes, Esq.* “Epping.”—*Mr. Doubleday.*

Sp. 3. *Galiata*. *Alis albidis, strigis basi, fasciâque medio lobulatâ cinereo-fasciâ, margine postico fusco nubilato.* (Exp. alar. 1 unc. 1—3 lin.)

Ge. *Galiata*. Wien. Verz.—Ha. *Galiata*. Steph. Catal. part ii. p. 132. No. 6554.

Whitish: anterior wings with a broad pale fuscescent striga at the base, slightly crenated without; a dolabriform ashy-brown fascia in the middle, slightly dentate within and lobate without, with darker undulated lines and a black spot; on the costa beyond is a subquadrate fuscous spot, the hinder margin is clouded with fuscous, and an undulated whitish striga runs nearly parallel thereto, anterior to which is an obsolete dusky striga; between the basal striga and the fascia are some more or less distinct cinereous strigæ: posterior wings darker, with pale-ashy waved strigæ: cilia of all clouded with fuscous.

Slightly variable; in some examples, exclusively of the small difference in the width of the medial fascia, the wings are spotless, while in others they are very much clouded.

The caterpillar is said to feed on the *Galium Mollugo*: the imago appears in the beginning of June, and a second time about the middle of August.

This insect appears to be confined to the coasts of Great Britain and Ireland: previously to August, 1818, four examples only were

in the metropolitan Cabinets: in that year I discovered its locality near Dover, and took a single example; and in the following June I found it in the same place abundantly, since which it has been again taken in plenty. “Woodlands, Devon.”—*Dr. Leach*. “Near Dublin.”—*N. A. Vigors, Esq.* “Weston-on-the-green.”—*Rev. A. H. Matthews*.

Sp. 4. unilobata. *Alis cinerascentibus subnebulosis fasciâ latâ medio, unilobatâ fuscâ, nigro strigosa.* (Exp. alar. 1 unc. 2 lin.)

Ph: unilobata. *Haworth*.—*Ha. unilobata. Steph. Catal. part ii. p. 132. No. 6555.*

Anterior wings ashy-white, with a small fuscous fascia at the base, another broad one in the middle, with undulated black lines, sinuated exteriorly, and as it were unilobate behind: posterior margin darker, especially towards the costa, with a white evanescent striga of united white arches, in which is a didymated black spot: posterior wings somewhat fuscous, with evanescent pale transverse strigæ.

This insect too closely resembles the preceding to be really a distinct species; but as my specimen was obtained nearly from the same locality with Mr. Haworth's, and exactly resembles it, I have thought proper to consider it distinct, but with doubt: there is an insect closely resembling it in the British Museum, which was caught in Scotland.

Taken in Yorkshire.—*Haworth, l. c.* “Near Scarborough.”—*W. Bean, Esq.*

Sp. 5. quadriannulata. *Alis cinereis strigis tribus geminatis, maculâque costali fuscis, fasciâ anticâ moniliformi limboque postico albis.* (Exp. alar. 1 unc. 1 lin.)

Ph. quadriannulata. *Haworth*.—*Ha. 4-annulata. Steph. Catal. part ii. p. 132. No. 6556.*

Anterior wings ashy-brown at the base, then with two geminated waved fuscous strigæ, and between these a narrow fascia of four rounded white spots, edged with black; then a broad fuscous-ash space or fascia, terminating in a geminated fuscous striga, with a black spot within towards the costa; behind this the wings are whitish, a little clouded with cinereous and darker shades and waves, with a small emarginate black spot towards the apex of the costa: posterior wings pale cinereous white, with the border rather darker.

I strongly suspect that this insect, which is found in Cambridge-shire and on the coast of Devon, is also merely an extraordinary variety of *Ha. Galiata*.

Sp. 6. tristata. *Alis albis fasciis sinuatis strigis punctorum, limboque communibus albis.* (Exp. alar. 11—13 lin.)

Ge. tristata. *Linné*.—*Ha. tristata. Steph. Catal. part ii. p. 132. No. 6565.*

Black; anterior wings with the base black, in which is a delicate white striga, then a white space with a few black spots in it, followed by a broad black band, slightly attenuated towards the inner margin, crenate or flexuous without, and with a conspicuous darker dot towards the costa: beyond this is a narrow flexuous white striga, in which is a row of black dots, and the hinder margin of the wing is black, with a more or less distinct white striga: cilia white, irregularly interrupted with black; posterior wings similar.

The central fascia is generally spotted or streaked with white; the insect is in other respects very variable, not only in colour, but in the relative width of the strigæ; the dark parts being sometimes ashy-black, and the light cinereous or pale ochraceous, and the latter, in some instances, occupy above half the extent of the surface of the wings.

Caterpillar yellow, with red-brown longitudinal stripes or some white dots on the sides: it feeds on the *Galium verum*:—the imago appears in June.

Very rare in the south of England, but not uncommon in some parts of the country. “Meldon-park.”—*G. Wailes, Esq.* “Rae-hills, very common.” *Rev. W. Little.* “York, rare.”—*W. C. Hewitson, Esq.* “Devonshire.”—*Capt. Blomer.*

Sp. 7. subtristata. *Alis fasciis strigisque fuscis, cinereis, albisque; limbi omni cinereo-fusco strigâ obsoletâ communi ex arcubus albis concatenatis.* (Exp. alar. 1 unc.—1 unc. 2 lin.)

Ph. subtristata. *Haworth.*—Ha. subtristata. *Steph. Catal. part ii. p. 133. No. 6564.* Ph. contristata.—*Donovan, xv. pl. 510. f. 2.*

Wings pale ashy-brown at the base; anterior with a white striga, in which is a broad and a slender fuscous one, followed by a broad fuscous fascia, having a dark spot towards the costa, and its hinder margin with a single angle, and a little arcuate towards the costa; this is followed by a white common fascia, in which is a fine ashy-brown striga, and the outer margin of all the wings is ashy-brown, with a striga of white arches: cilia fuscous, with darker clouds: the abdomen with a double series of fuscous spots down the back.

Variable a little in colour, and considerably in the width of the central fascia on the anterior wings, which is sometimes very broad, and in very rare instances perfectly disunited, in the middle, so as to form two transverse spots, the one on the costa being largest, and having a black dot within:—this variety forms the Ph. degenerata of Haworth.

The caterpillar is supposed to feed on the *Alchemilla vulgaris*: the imago appears in June, and again in August.

Extremely abundant in bushy lanes and on the borders of woods throughout the metropolitan district; and not uncommon in other parts of the country. “Cargo, Cummersdale, King-moor, &c.”—*T. C. Heysham, Esq.* “Raehills, common.”—*Rev. W. Little.* “York and Newcastle.”—*W. C. Hewitson, Esq.*

Sp. 8. *sylvaticata*. *Alis fasciis strigisque cinereis, albis, fuscisque, limbo omni cærulescenti-fusco maculâ albâ interrupto*. (Exp. alar. 1 unc. 3 lin.)

Ph. *sylvaticata*. Haworth.—Ha. *sylvaticata*. Steph. Catal. part ii. p. 133. No. 6563.

Anterior wings white at the base, with a slender fuscous striga and irregular cinereous clouds, the middle with a broad fuscous fascia, obtusely unangulated in the middle, with a dark spot towards the costa, and other smaller ones on the margin; behind this is a broad white fascia; the hinder margin of all the wings is of a bluish or lead-coloured brown, interrupted in the middle of each with a large whitish spot, and traversed by an undulated white line; on the hinder margin is an interrupted black line; and the cilia of the anterior wings are fuscous, with pale streaks, and of the posterior cinereous with fuscous clouds: posterior wings whitish, with a fuscous dot towards the base, and some abbreviated fuscous strigæ towards the inner margin.

This and the two preceding species form a portion of the genus *Melanippe* of Duponchel, the palpi are rather shorter than in their congeners.

Much less abundant than the last, and very local: in plenty, however, at Darenth-wood and its neighbourhood in July. “Rae-hills.”—Rev. W. Little.

Sp. 9. *unangulata*. *Alis cinereo-fuscis, fasciâ medio acute unangulatâ nigrâ anteliam albam*. (Exp. alar. 1 unc. 2—3 lin.)

Ph. *unangulata*. Haworth.—Ha. *unangulata*. Steph. Catal. part ii. p. 133. No. 6562. Wilkes's Designs, pl. 5. f. 6.

Anterior wings at the base ashy-brown, with a fulvescent tinge, followed by a pale striga in which are some ashy clouds; beyond which is a beautiful sub-dolabriform fuscous fascia, with its outer margin produced into a single obtuse angle about the middle, and a deep-black spot towards the costa, followed by a white striga; the hinder margin of all the wings ashy-brown, with darker clouds and a conspicuous striga of united white arcs: cilia clouded with fuscous; posterior wings paler at the base, with waved fuscous strigæ, and a fuscous dot before the middle.

A little variable in colour, and the base of the posterior wings is sometimes fuscous.

This pretty species is also somewhat uncommon: it occurs at Birch and Darenth Woods; and I have found it at Coombe, at the end of June.

Sp. 10. *biangulata*. *Alis anticis virescentibus fasciâ latâ biangulatâ medio, saturatiore, antefasciolarum albam*. (Exp. alar. 1 unc. 3—4 lin.)

Ph. *biangulata*. Haworth.—Ha. *biangulata*. Steph. Catal. part ii. p. 133. No. 6561. Harris, Exp. 31. pl. 8. f. 4.

Anterior wings ashy-green at the base, then with a conspicuous broad greenish-

brown fascia clouded with black, and produced on its hinder margin into two sharp angles, the one towards the costa most prominent; behind this a rather broad white fascia, with very much undulated fuscous strigæ, and the outer margin greenish, with a waved white striga: cilia greenish, with some fuscous spots: posterior wings cinerascens, with undulated darker and lighter strigæ; on the hinder margin of all the wings is an interrupted slender black line. Slightly variable in colour, arising from age, the beautiful virescent tinges changing to a pale lutescent.

Not very abundant; found in several of the woods within the metropolitan district, particularly at Darent and its vicinity. "Weston-on-the-green."—*Rev. A. H. Matthews*. "Little Orton."—*T. C. Heysham, Esq.* "Epping."—*Mr. Doubleday*.

Sp. 11. silaceata. *Alis anticis cinereis subnitidis, fasciâ basi, alterâque medio, sæpe interruptâ, utrâque albo-marginatâ brunneo-fuscis, strigâ posticâ maculâque conicarum alterâque apicis fuscis.* (Exp. alar. 1 unc. 2—4 lin.)

Geo. silaceata. *Wien. Verz.*—*Ha. silaceata. Steph. Catal. part ii. p. 133. No. 6566.*—*Ph. cuneata. Don. xiv. pl. 437. f. 2.*

Anterior wings slightly globose, with a fuscous-brown patch at the base, followed by a whitish striga, in which is a geminated clouded ashy striga; then a very broad fuscous-brown fascia, trilobed behind, and margined with white; beyond this the wing is clouded fuscous and whitish, with an irregular series of conical fuscous spots more or less edged with white, and towards the apex of the hinder margin is a conic patch of similar hue; and from the apex of the wing arises a very much angulated white striga: posterior wings fuscous at the base, with a darker spot; the hinder margin paler, with undulated strigæ. Extremely variable; in some instances the central fascia on the wings is broken into three, or only partially divided, leaving an insulated spot on the disc: the conical spots on the hinder margin are also sometimes nearly evanescent; and the ground colour is somewhat ochraceous.

Caterpillar bright green, with a duller lateral line, and a black dorsal one, with some yellowish green spots beneath; it feeds on the aspen:—the imago appears towards the end of July or beginning of August.

Rare near London; I have taken it in the British Museum garden; but near Dover it appears to be in plenty, where I captured many specimens, varying considerably from each other, in August, 1819. "Epping."—*Mr. Doubleday*. "Meldon-park."—*G. Wailes, Esq.* "Weston-on-the-green."—*Rev. A. H. Matthews*. "Newby Cross."—*T. C. Heysham, Esq.* "Marton Lodge."—*Rev. G. T. Rudd*.

Sp. 12. Corylata. *Alis atomosis, anticis fusco et rufescente-albo fasciatis, fasciâ mediâ argutâ et irregularitèr dentatâ, et sæpè interruptâ.* (Exp. alar. 1 unc. 2—3 lin.)

Ge. *Corylata*. *Thunberg, Ins. Succ.* 61, *pl.* 4.—*Ha. ruptata*. *Steph. Catal. part ii.* p. 133. *No.* 6567.—*Albin. pl.* xcvi. f. a—d.

Anterior wings with a lutescent fuscous patch at the base, dentate outwardly; then a whitish striga, its centre clouded with lutescent and minutely sprinkled with fuscous; followed by a central fuscous fascia, dentate on its inner margin, and on its outer edge very irregularly dentate, and considerably attenuated towards the inner margin; beyond this the wings are whitish clouded with lutescent and fuscous, with an undulated white striga and a whitish patch towards the middle of the hinder margin, on which is an irregular whitish striga and a black line: cilia pale, with fuscous spots: posterior wings cinereous, with a central fuscous dot; the hinder margin pale.

Variable in the form of the central band of the anterior wings, which is very frequently divided into two, so as to form two transverse spots.

Caterpillar yellowish-green, with brownish-red spots on the back, and a whitish lateral line; it feeds on the black-thorn, hazel, lime, &c.:—the imago appears in the middle of June.

Abundant in some places, especially at Coombe-wood; also found at Darenth and Birch Woods. “Epping.”—*Mr. Doubleday*. “Melton-park, Tanfield, &c.”—*G. Wailes, Esq.* “Weston-on-the-green.”—*Rev. A. H. Matthews*. “Baron-wood.”—*T. C. Heysham, Esq.* “Flisk, N. B.”—*Rev. J. Fleming*.

GENUS CCI.—POLYPHASIA * *mili*.

Palpi rather long, porrected obliquely upwards, clothed with long scales concealing the terminal joint, acute at the apex and forming a sort of beak; tri-articulate; the basal joint robust, curved; the second shorter, attenuated; third minute, conic: *maxillæ* long. *Antennæ* simple in both sexes; pubescent within in the males, very slender in the females: *head* small: *eyes* globose: *thorax* very slender, squamous: *wings* entire on the hinder margin, forming a triangle during repose; the anterior acute at the apex, triangular; the disc traversed with a central fascia, sometimes dark and solid, at others light and having dark waved lines; posterior about of equal size, ovate-triangular: *abdomen* rather long, very slender in the males, with a large anal tuft; shorter, rather stouter, and slightly acuminate in the females: *legs* very slender. Larva with 10 legs, slender, glabrous, with two short tubercles on the hinder segment.

This genus forms a portion of the genus *Harpalyce* of my Catalogue, from which it evidently differs, not only by the dissimilarity

* Πολύ, multum; φάσις, apparitio.

of the contour and markings of the wings, but in the structure and length of its palpi, and by the diversity of the larva:—the species are extremely prone to vary—whence the name I have employed to designate them—and appear to have been all confounded under one by every continental writer, but that most of them are clearly distinct must be evident to all practical entomologists.

Sp. 1. *immanata*. *Alis anticis cinereis griseo-variis, fasciâ basi alterâque medio, intus crenatis extus argutè dentatis*. (Exp. alar. 1 unc. 2—3 lin.)

Ph. *immanata*. Haworth.—Ha. *immanata*. Steph. Catal. part ii. p. 134. No. 6570.

Anterior wings cinereous, with a slender dentate or angulated solid black fascia at the base, followed by a griseous one and a broad solid one in the middle, crenated within and strongly and irregularly dentate without, the middle produced into two lobes, the costal one being bifid: adjoining to this is a large whitish costal spot, more or less continued to the inner margin, and gradually shaded into bright fuscous or ferruginous; beyond this is a waved white striga; towards the hinder margin are some wedge-shaped fuscous spots; and on the hinder margin itself is an interrupted black line: posterior wings fuscous-ash, with a central dot and an angulated striga darker; the margin from the latter paler, and sometimes slightly mottled with dusky.

Extremely variable in tint, and slightly in the width of the central fascia, which latter is always more strongly produced in the middle of the outer edge than in the following species, and more acute; in some cases this fascia is slightly unsolid, its centre being cinerascens, with a distinct black dot and some dark waved lines; in others it is tinged with ferruginous.

Not very uncommon in woody places in the beginning of July.
 “Strand-on-the-green.”—Rev. A. H. Matthews. “Raehills.”—Rev. W. Little. “Epping.”—Mr. Doubleday.

Sp. 2. *amænata*. *Alis anticis subangustis albido-cinereis, basi atrâ, fasciâ latissimâ in medio nigrâ extus productâ argutèque obtusè dentatâ: posticis albidis*. (Exp. alar. 1 unc. 2 lin.)

Ha. *amænata*. Steph. Catal. part ii. p. 134. No. 6571.

Anterior wings rather narrow, ashy-white, with the base black, its outer edge very much angulated; this is followed by a narrow irregularly angulated fascia clouded with fuscous, beyond which is a very broad black fascia, dentate within and very much produced in the middle of its outer margin, the process being composed of two lobes, of which the first is very broad and bifid, and the inner and shorter one very acute and simple; this fascia is bordered posteriorly by a broad white striga, beyond which the hinder margin is clouded with fuscous, and has a very distinct undulated white striga: posterior wings whitish, with a fuscous dot on the disc.

Varies in having the central fascia on the anterior wings white in the middle. Differs from the former by its narrower wings, and by the different form of the basal and central fasciæ, and by its dissimilarity of colour.

Found in Devonshire: I possess two specimens given to me by Dr. Leach, who captured them near Ashburton.

Sp. 3. *marmorata*. *Alis anticis ferrugineo-cinereis subnebulosis, fasciâ medio albâ nigro undulatâ, extus productâ argutèque dentatâ*. (Exp. alar. 1 unc. 1—3 lin.)

Ph. *marmorata*. *Fabricius*.—Ha. *marmorata*. *Steph. Catal. part ii. p. 134. No. 6572*.—Ph. *omicrata*. *Don. xv. pl. 520. f. 1?*

Anterior wings rusty-ash at the base, with a narrow angulated fuscous striga edged with black, and towards the middle a very broad unsolid white fascia, more or less banded on each side with fuscous, and with several undulated black strigæ, which are sometimes united towards the inner margin, and form black circles; towards the costa the white colour is always predominant and bears a black dot, and the exterior margin of the fascia is considerably produced in the middle, and irregularly, but strongly, dentate; beyond the wing is ashy tinted with ferruginous and clouded with fuscous towards the hinder margin, near which is an interrupted waved white striga, and a black line on the margin itself: posterior wings fuscescent or dusky-white, sometimes with a faint angulated striga.

Extremely variable; sometimes the white, at others the black, or the ferruginous, colours predominating; and the strigæ more or less intense or deficient.

Less abundant than the first species, but in the woods of Kent it occurs more frequently than in other places near the metropolis, in July. “Epping.”—*Mr. Doubleday*. “Meldon-park.”—*G. Wailes, Esq.* “Cuddoch.”—*T. C. Hcysam, Esq.* “Raehills.”—*Rev. W. Little*.

Sp. 4. *concinната*. *Alis anticis griseo-cinereis, atro-nebulosis, fasciâ medio in-solidâ albidâ, extus argutè dentatâ, strigâque albâ posticâ angulatâ*. (Exp. alar. 1 unc. 3 lin.)

Ha. *concinната*. *Steph. Catal. part ii. p. 134. No. 6573*.

Anterior wings griseous-ash, clouded with deep black, and prettily varied with interrupted obsolete whitish and black strigæ, with an indistinct unsolid whitish central fascia, of which the outer edge is considerably produced, and strongly dentate between the lobe and the costa, as well as towards the inner margin; on the disc is a large black dot, placed on the edge of the whitish portion of the central fascia; and on the inner margin, towards the base of the wing, are two very conspicuous white spots; cilia fuscous, with darker clouds:

posterior wings fuscous, with a darker spot towards the base, a pale striga behind the middle, and a very distinct row of whitish spots towards the hinder margin, which is darker than the base.

My specimens of this insect were captured in Scotland; it seems very distinct from all the others: I believe specimens are in the British Museum, taken by Dr. Leach in the Isle of Arran.

Sp. 5. *commanotata*. *Cinereo-fusca, alis anticis fasciâ medio latissimâ fulvâ, extus sinuatim crenatâ, posticis fuscescentibus, strigâ posticâ ordineque macularum pallidarum.* (Exp. alar. 1 unc. 1—3 lin.)

Ph. *commanotata*. *Haworth.*—Ha. *commanotata*. *Steph. Catal. part ii. p. 134. No. 6574.*

Ashy-brown; anterior wings with a broad fulvous central fascia, obscurely bordered with whitish, with its outer margin sinuated crenate, the disc with darker waved fulvescent strigæ and a black dot towards the costa; on the hinder margin is an undulated whitish striga, and an oblique dark streak, and wedge-formed dusky spots; at the base, on the inner edge of the wing, are two white or whitish spots, and on the hinder margin an interrupted blackish line: posterior wings fuscescent, with an obsolete darker spot, a pale posterior striga, and an indistinct row of pale spots.

Very slightly variable in tint, but sufficiently known by the bright fulvous fascia on the anterior wings.

Not very abundant, but found in woody places in July throughout the metropolitan district. “Epping.”—*Mr. Doubleday*. “In Bottisham and Horningsea Fens.”—*Rev. L. Jenyns*. “Meldon-park, Newcastle, &c.”—*G. Wailes, Esq.* “Upperby.”—*T. C. Heysham, Esq.* “Strand-on-the-green.”—*Rev. A. H. Matthews*.

Sp. 6. *centumnotata*. *Alis anticis fusco-cinereis, fasciâ medio cinereâ, extus sinuatim crenatâ.* (Exp. alar. 1 unc.—1 unc. 3 lin.)

Ph. *centumnotata*. *Fabricius.*—Ha. *centumnotata*. *Steph. Catal. part ii. p. 134. No. 6575.*

Anterior wings ashy-brown at the base, sometimes with darker waved strigæ, then a broader space more or less tinted with griseous or clouded with fuscous, followed by a broad central unsolid cinereous fascia, in which is a black dot towards the costa, and several undulated black strigæ or annular marks, and the margins are fuscous, with the outer one sinuate-crenate and slightly produced in the middle, the process divided into obtuse lobes; behind this fascia there is a ferruginous one shaded into fuscous towards the hinder margin, in which is an undulated whitish line and some dusky clouds: posterior wings fuscescent, with an obscure dot, and pale spots on the hinder margin.

Extremely variable, scarcely two examples occurring precisely similar: in some the wings are very prettily varied with ferruginous and white; others have scarcely a tint of the former colour, and in some the fuscous hue predominates:—the central fascia is sometimes entirely free from marks, at others is thickly crowded with waved black or dusky strigæ.

The most abundant species of the genus, occurring in plenty on the borders of woods and in bushy places throughout the metropolitan district at the end of July. “Epping.”—*Mr. Doubleday*. “Meldon-park, Newcastle, &c.”—*G. Wailes, Esq.* “Saint Nicholas, &c.”—*T. C. Heysham, Esq.* “Strand-on-the-green.”—*Rev. A. H. Matthews*.

Sp. 7. *saturata*. *Alis anticis fusco-cinereis, fasciâ medio pallidiorè, extus argutè dentatâ*. (Exp. alar. 1 unc.—1 unc. 3 lin.)

Ha. saturata. *Steph. Catal. part ii. p. 134. No. 6576*.

Anterior wings fuscous-ash, with an indistinct unsolid broad central fascia, the outer margin of which is strongly dentate, and produced in the middle, the larger process being somewhat obtusely trilobed, its disc is traversed with undulated strigæ, and bears an elongate black spot towards the costa; towards the hinder margin is an indistinct ferruginous fascia and some dusky clouds, with an undulated white striga: posterior wings fuscous.

Also extremely variable: in one of my specimens, which appears to belong to a distinct species, the central fascia is deep fuscous and very apparent, with the outer margin somewhat dissimilar in form to that of the usual state of the insect:—it closely resembles the following insect, but the basal fascia is distinct and considerably dentate.

Less frequent than the last, but nevertheless not uncommon throughout the metropolitan district in July. “Meldon-park, Newcastle, &c.”—*G. Wailes, Esq.*

Sp. 8. *perfuscata*. *Alis subcinereis, fasciâ edentatâ basi, alterâque medio argutè dentatâ nigris*. (Exp. alar. 1 unc. 2—3 lin.)

Ge. perfuscata. *Haworth*.—*Ha. perfuscata*. *Steph. Catal. part ii. p. 134. No. 6577*.

Wings somewhat cinereous, with a simple black fascia at the base, and a broad one in the middle, produced in the centre of its outer edge, and strongly dentate; this is bordered by a slight pale striga, followed by a ferruginous tinge, and an obscure waved pale or whitish line, and the hinder margin is very dark fuscous, with darker clouds: posterior wings fuscous.

Also variable: one of my specimens—which was given to me by Mr. Haworth—has a distinct round white spot in the centre of the dark fascia of the anterior wings, adjoining the usual black dot: it is the var. γ of Lep. Britt.

Somewhat rare: found, however, in several of the metropolitan

woods, and at Darent, Birch, and Coombe, in July. "Epping."
—*Mr. Doubleday*. "Strand-on-the-green."—*Rev. A. H. Matthews*.
"Meldon-park, Newcastle, &c."—*G. Wailes, Esq.* "Rae-hills."—*Rev. W. Little*.

GENUS CCII.—*STEGANOLOPHIA* * *mihi*.

Palpi rather long, much compressed, broad, ascending, clothed with long loose scales at the base, and compact short ones at the apex, which is exposed and acute; triarticulate, the basal joint curved and slightly thickened, the second as long terminal minute, acute: *maxillæ* rather long. *Antennæ* simple in both sexes, rather thickened in the males, and the articulations distinct: *head* small, rounded: *eyes* globose: *thorax* slender, squamous, slightly crenated behind: *wings* entire, placed in a triangle during repose, anterior acute at the apex, the hinder margin rounded, the disc with a broad fascia rather behind the middle, an oblique streak at the apex, including, as it were, a coloured patch on the hinder margin; posterior with undulated marginal lines; beneath, at the base of the anterior in the males, is a long concealed tuft of hairs, capable of being expanded into a broad fan: *abdomen* long and slender, the male with a large tuft at the apex, with its centre produced and acuminate; in the female stouter, and with a small tuft at the apex. Larva with ten legs, long, slender, swollen behind the head, which is slightly notched, and thickening from thence to the apex, which is rugose above: pupa folliculated.

The males of this genus may be readily known by the singular tuft or crest which exists at the base of the anterior wings beneath, but which is generally concealed by the costal edge of the posterior wings; the abdomen is also very slender and considerably elongated, with a larger somewhat trilobed tuft at the apex, and which is considerably elevated during the repose of the animal; the females also may be distinguished not only by the structure of the palpi and their compressed form, but by the broad fascia on the anterior wings somewhat behind the middle, with a patch at the apex, and the integrity of their hinder margin: the larva also differs by having the neck swollen, then suddenly attenuated, and the body gradually enlarging to the apex, which is rugose.

Sp. 1. *Prunata*. *Alis anticis griseo-cinereis fasciâ basi, alterâ medio maculâque apicis purpurascenti-brunneis albo marginatis.* (Exp. alar. 1 unc. 4—6 lin.)
Ph. Ge. *Prunata*. *Linné*.—*Don*. vii. pl. 233. f. 1.—*St. Prunata*. *Steph. Catal.* part ii. p. 135. No. 6579.

* *Στεγανος*, opertus; *Λοφος*, crita.

Anterior wings griseous-ash, with a narrow angulated indeterminate purplish-brown fascia near the base, edged externally with white, a second very broad slightly curved one in the middle, coarsely crenate and edged with white on both sides, with two waved darker strigæ springing from two pale marks on the costa; behind this fascia is a series of dark fuscous spots, edged with white exteriorly, of which those towards the costa are conical and the remainder lunate; and on the hinder margin towards the apex is a large semiovate dark patch also bordered with white, the last colour continued in a fine streak to the anal angle: posterior wings fuscous, with two or three pale waved marks towards the margin edged within with fuscous; cilia of all the wings spotted with fuscous.

Slightly variable: in one of my specimens the central fascia on the anterior wings is very much attenuated on the inner margin.

Caterpillar cinereous or greenish, with reddish or white dorsal spots, and the legs red; and a black ring behind the head: it feeds on the sloe, elm, currant, gooseberry, poplar, &c.:—the imago appears towards the end of July, frequenting gardens.

Local, but in plenty where found: it occurs in profusion at Ripley, and occasionally at Hertford. “Epping, abundantly in gardens: its larva sometimes strips the currant-bushes of leaves.”—*Mr. Doubleday*. “Newby-cross.”—*T. C. Heysham, Esq.* “Swaffham Prior, Cambridgeshire.”—*Rev. L. Jenyns*. “Strand-on-the-green.”—*Rev. A. H. Matthews*. “Meldon-park.”—*G. Wailes, Esq.*

GENUS CCIII.—LAMPROPTERYX * *miki*.

Palpi very short, scarcely visible from above, remote, densely clothed with scales, the apex acute; triarticulate, the basal joint short, curved, second longer, cylindric, terminal minute: *maxillæ* rather long. *Antennæ* stout in the males, each joint slightly produced beneath, and furnished with a row of hairs, in the females more slender and obscurely serrated within: *head* small, round: *eyes* globose: *thorax* slender, squamous, subcrested behind: *wings* very glossy, obscurely indented on the hinder margin, the posterior sometimes rather deeply so, the anterior with a central fascia, sometimes unsolid, and terminated by a series of arcs towards the inner edge of the wing: *abdomen* slender, long, acuminate towards the apex in the male, and furnished with a large tuft, acuminate in the middle; of the female stouter and shorter, with a small anal tuft. Larva with 10 legs, smooth, cylindric, naked: pupa in a web amongst leaves.

* *Λαμπρός*, nitidus; *πτερόν*, ala.

The insects of this genus may be distinguished with facility from all the other genera of Geometridæ, excepting *Triphosa*, which has the margins of the wings deeply indented, by the glossiness of the anterior wings, which are rather long and narrow, with their hinder margins very obsoletely waved, the disc traversed by a fascia, more or less solid, and the apex with a dark oblique streak: the antennæ of the males are stout, and rather strongly ciliated, and of the females obscurely serrated: all the species are apparently double-brooded, appearing early in the spring, and again towards the middle of summer.

Sp. 1. *suffumata*. *Alis anticis cinereis subnebulosis, nitidis, basi fasciâque medio piceo-brunneis.* (Exp. alar. 1 unc. 2—3 lin.)

Ge. *suffumata*. *Wien. Verz.*—Ha. *suffumata*. *Steph. Catal. part ii. p. 134. No. 6578.*

Anterior wings very glossy, cinereous clouded with fuscous, with the base pitchy-brown, a broad fascia of the same in the middle, irregularly dentate within, and subtrilobate without, the central lobe most produced and somewhat bifid; towards the apex of the hinder margin is a large fuscous patch edged with white within, the latter colour springing from the apex, and on the costa near the latter a striga of white lunules arises and passes through the fuscous spot to the anal angle of the wings: posterior wings fuscous, the margin darker, with some undulated pale lines, and the extreme margin of all the wings with a series of geminated black dots; cilia cinereous, with fuscous clouds.

Rather scarce: I have twice taken it in July at Hertford, and Mr. Haworth states that it is found in the beginning of April. "Epping."—*Mr. Doubleday*. "Meldon-park."—*G. Wailes, Esq.* "Rae hills, not rare."—*Rev. W. Little*. "Newby-cross."—*T. C. Heysham, Esq.*

Sp. 2. *piceata*. *Alis anticis lucidis, brunneo-piceis fasciâ medio saturatiore extus lobatâ, margine externo strigâ albâ interruptâ, posticis fuscis fimbriâ saturatiore.* (Exp. alar. 1 unc. 4 lin.)

La. *piceata mihi.*

Anterior wings very glossy; of a deep uniform pitchy-brown, with a deeper broad central fascia in which is a black spot; its outer margin is lobate, with the central lobe obtuse and entire; towards the apex of the wing is an interrupted striga composed of white spots, and at the apex is an oblique white streak; cilia plain pitchy-brown, with obscure darker clouds: posterior wings fuscous, with a darker margin: cilia fuscous.

In one of the specimens I have examined, the base of the anterior wings is distinctly darker than the rest of the wing, excepting the central fascia. The antennæ of the male are much more strongly ciliated than in the foregoing insect, and the wings broader.

I have hitherto seen but three examples of this remarkably distinct species, two males and a female: it appears peculiar to the north of England. "Newcastle."—*G. Wailes, Esq.** "Marton Lodge, Feb. 1831."—*Rev. G. T. Rudd.*

Sp. 3. *badiata*. *Alis anticis subnitidis, fusco-ferrugineis, strigis, fasciis fimbriâque fuscis, lunulâ ad marginem externum albâ.* (Exp. alar. 1 unc. 1—2 lin.)

Ge. badiata. *Wien. Verz.*—Ph. Berberata. *Don. xiv. pl. 493. f. 1.*—*Phi. badiata.* *Steph. Catal. part ii. p. 139. No. 6608.*

Anterior wings slightly shining, rusty-brown, with two or three somewhat incurved chocolate-coloured strigæ at the base, composed of several obsolete ones; then a pale reddish-white space, bordered without by an obscure deeply crenate duplex fasciola, beyond which is another obscure pale one, the space from which to the hinder margin is deep chocolate, with an oblique black line at the apex, and a very obsolete pale striga, in the middle of which is a conspicuous white lunule, or caret-like mark: posterior wings pale, with the hinder margin and cilia fuscous.

The anterior wings are sometimes of an uniform tint; with the strigæ more or less perceptible.

Caterpillar anteriorly dirty-green, posteriorly dull reddish-white, with some black and white lateral spots: head yellowish, with a black spot on each side: it feeds on the dog-rose (*Rosa canina*):—the imago appears in February, and again in June or July.

Not very uncommon in shrubby places within the metropolitan district. "Epping."—*Mr. Doubleday.* "Marton Lodge."—*Rev. G. T. Rudd.* "Strand-on-the-green."—*Rev. A. H. Matthews.* "Newcastle, Meldon-park, &c. common."—*G. Wailes, Esq.* "York."—*W. C. Hewitson, Esq.*

* From whom I have also recently obtained specimens of what seems to be a new species of *Polyommatus*, intermediate between *Po. Agestis* and *Artaxerxes*, and which I propose calling *Po. Salmacis*, thus briefly characterized:—

Po. Salmacis. *Alis fusco-nigris, subtus fusciscentibus maculis subocellatis, anticis supra in masculis puncto discoidali atro, in feminis albo, posticis utrinque fasciâ submarginali rubrâ.* (Exp. alar. ♂ 1 unc. 1 lin.; ♀ 1 unc. 2 lin.)

"Taken on Castle Eden Dean."—*G. Wailes, Esq.*

GENUS CCIV.—*ANTICLEA mihî*.

Palpi very short, porrected obliquely, densely squamous; the terminal joint acute; triarticulate, the basal joint short, bent; the second equal, sub-cylindric; terminal minute: *maxillæ* rather short. *Antennæ* simple in both sexes, compressed at the base in the males: *head* small: *eyes* globose: *thorax* slender, with a slight squamous crest behind: *wings* rather broad, the hinder margins considerably rounded and more or less minutely indented, the anterior traversed by a fascia at the base and an unsolid one on the disc, the outer edge of which towards the inner margin of the wing is generally terminated by a series of arches or angular marks: *abdomen* slender, especially in the males, and furnished at the apex with a small tuft; somewhat stouter and obtuse in the females. Larva with 10 legs, slender, rugose, glabrous.

This genus differs manifestly from the foregoing in the structure of the antennæ, the shortness of the palpi, brevity and rotundity of the wings, of which the anterior are adorned with an unsolid central fascia, having its hinder margin terminated by a series of arcs: the antennæ of the males are simple, thickened at the base, and compressed.

Sp. 1. *Berberata*. *Alis anticis rufo-cinerascentibus, fasciis tribus lineolâque apicis fuscis*. (Exp. alar. 1 unc. 4—3 lin.)

Ge. *Berberata*. *Wien. Verz.*—Ha. *Berberata*. *Steph. Catal. pt. ii. p. 132. No. 6560.*

Anterior wings reddish-ash; towards the base is a narrow fuscous fascia, a second before the middle, both slightly flexuous; beyond the middle is a third, very strongly dentate behind, and vanishing towards the inner margin, the space between the two latter pale-ash; from this last fascia to the hinder margin the wing is darker, with a rufescent-brown patch on the costa, and a rather obscure whitish undulated line arising from its outer edge; and at the apex is an oblique black streak: posterior wings cinerascens, with an obsolete fuscous striga behind the middle, and some obscure waved strigæ on the margin; the hinder margin of all with an interrupted black streak: cilia cinereous, slightly clouded with fuscous.

Caterpillar rough, varied with fuscous, white and red; it feeds on the barberry (*Berberis vulgaris*):—the imago appears towards the middle of June.

Rare; and I believe not found within the metropolitan district: it has been taken in Berkshire. “Beachamwell.”—*J. Scales, Esq.*
“Strand-on-the-green.”—*Rev. A. H. Matthews.*

Sp. 2. *rubidata*. *Alis anticis flammeo-rubris fasciâ basi fuscâ, alterâque medio insolidâ, externè argutè crenatâ*. (Exp. alar. 1 unc.—1 unc. 2 lin.)

Ge. rubidata. *Wien. Verz.*—*Ha. rubidata.* *Steph. Catal. part ii. p. 132. No. 6559.*

Anterior wings fuscous at the base, with a darker incurved fascia at the base composed of two strigæ; then a broad clear flame-red space, beyond which is a very broad dusky fascia, composed of a fuscous fasciola at the base; then a wide pale space, and ending in a second fuscous fasciola, slightly waved and terminating in a delicate black striga composed of five arcs on the inner margin of the wings: the hinder margin is flame-red, with a pale waved striga, and its extreme edge has a slender interrupted black line; cilia fuscous, with darker clouds: posterior wings ashy-brown, with obscure darker waves, the margin tinted with red.

Rather variable; the central fascia being sometimes very dark, at others nearly white, especially towards the inner edge of the wings, and with a very conspicuous black dot towards the costa.

Caterpillar grass-green, with a dark line on the anterior and posterior segments; it feeds on the *Galium montanum* and *G. sylvaticum*:—the imago appears the middle of July.

Not common; found at Darenth and Birch Woods. “Epping.”—*Mr. Doubleday.*

Sp. S. sinuata. *Alis albidis aut niveis, anticis fasciâ basi alterâque posticâ abbreviatâ costali fuscis, margine griseo-ferrugineo.* (Exp. alar. 1 unc.—1 unc. 2 lin.)

Ge. sinuata. *Wien. Verz.*—*Ha. sinuata.* *Steph. Catal. part ii. p. 132. No. 6557.*

Anterior wings white or niveous, the base fuscous, with a brighter reddish striga, giving the appearance of two incurved brown fasciæ; and behind the middle an abbreviated fascia on the costa, terminating internally, on the inner margin of the wing, in two faint slightly waved strigæ, and externally in a very faint series of dark arcs: behind this fascia on the costa is a reddish elongate patch, edged on both sides with white, the outer edge having an undulated striga, which extends to the opposite margin of the wing; the hinder margins and the cilia are fuscous, with a darker subquadrate spot on the middle of the fascia: posterior wings white, with the margin and some transverse strigæ brownish.

Caterpillar green, with a broad yellow lateral stripe and a greenish-yellow line, the latter edged with brown; it feeds on the bedstraw (*galium verum*):—the imago appears towards the end of June.

Very rare; the only locality I know is a lane between Darenth and Birch Woods: the insect has, however, been taken in Devonshire and in Berkshire.

Sp. 4. derivata. *Alis anticis albido-violaceis, fasciis tribus angulatis saturate fuscis.* (Exp. alar. 1 unc. 1—2 lin.)

Ge. derivata. *Wien. Verz.*—Ha. derivata. *Steph. Catal. part ii. p. 132. No. 6558. Wilkes's Des. pl. 11. f. 9.*

Anterior wings griseous-white, with the base and hinder margin tinted with violaceous, the former with a pale-fuscos angulated fascia; towards the middle of the wing a broader deep-fuscos one, expanded on the costa, and bending rather suddenly inwards towards the base of the inner margin; and behind the middle a third fascia, composed of three strigæ, arises from a somewhat triangular deep-fuscos spot on the costa, and passes obliquely towards the middle of the hinder margin, its two inner strigæ vanishing; it then becomes very suddenly deflexed and nearly evanescent, and is continued to the inner margin nearly parallel with the second fascia, as a slightly waved line; towards the hinder margin is an undulated whitish striga, and on the margin an interrupted black line on a pale ground: posterior wings fuscous, with an angulated striga and a darker spot on the disc.

Caterpillar green with triangular spots, the anus and legs bright red; it feeds on the dog-rose (*Rosa canina*):—the imago appears in the beginning of June.

Also somewhat rare: I have taken it at Coombe and Darenth Woods, and in other parts of the metropolitan district. “Epping, the larva very common on the yellow Austrian rose.”—*Mr. Doubleday*. “Allesley and Warwick.”—*Rev. W. T. Bree*. “Strand-on-the-green.”—*Rev. A. H. Matthews*. “Alderley.”—*Rev. E. Stanley*. “Newbiggin-wood.”—*T. C. Heysham, Esq.*

GENUS CCV.—ELECTRA *mihi*.

Palpi rather long, porrected obliquely upwards, base slightly pilose, apex clothed with long scales, terminating anteriorly and concealing the apical joint; triarticulate, basal joint slightly robust, curved upwards; second as long again, slender, attenuated to the apex, and faintly recurved; terminal one elongate-acuminate: *maxillæ* long. *Antennæ* simple in both sexes, subserrate and slightly pilose in the males: *head* globose; *forehead* prominent: *eyes* small: *thorax* slender, a little tufted behind: *wings* entire, placed in a triangle during repose; anterior acute at the apex, with a transverse open central fascia and an oblique streak at the tip; posterior immaculate: *abdomen* slender and elongate in the males, with a large somewhat trilobed anal tuft; shorter, more robust, and acute in the females. Females smaller than the males. Larva elongate, smooth, attenuated in front; head small; terminal segment unarmed: pupa subterranean.

The insects of this genus may be readily known by their light-yellow tinted wings—whence their name—which are adorned with an open central darker fascia, or three transverse strigæ in lieu

thereof, and always with an oblique streak at the apex, which is acute, combined with the elongation of the body in the males, and the large tuft at the apex, the simple antennæ of both sexes, and the long rostriform palpi; added to which, the females are always smaller than the males, which is not the case with those of the genus *Polyphasia*, which has recently been united with them: the larva also differs.

A. Anterior wings with a distinct central fascia: palpi rostriform.

Sp. 1. *comitata*. *Alis anticis subflavis fulvo subnebulosis, fasciâ medio geminatâ sinuatâ griseâ puncto ordinario atro, lineolâque apicis fuscâ.* (Exp. alar. 1 unc. 4—5 lin.)

Ph. Ge. *comitata*. *Linné*.—El. *comitata*. *Steph. Catal. part ii. p. 135. No. 6581. Albin, pl. xlvii. f. 79.*

Anterior wings yellowish, with a duplex somewhat griseous striga at the base, a broad unsolid fascia in the middle of the edges, composed of griseous strigæ, and the middle with a fuscous or black dot towards the costa; the hinder margin is somewhat clouded with fulvous, with an undulated flavescent striga, and at the apex is an oblique dusky streak: posterior wings pale, with obsolete strigæ; cilia all slightly spotted with fuscous.

Some examples are of a much darker hue than others.

Caterpillar varied with green and fuscous, with the head pale with two fuscous streaks, the sides with a yellowish line; it feeds on the wild orach (*Chenopodium album*):—the imago appears about the beginning of July.

Rather local, but abundant where found; especially in a field near Battle-bridge, and near Stratford: it also occurs in Yorkshire. “Strand-on-the-green.”—*Rev. A. H. Matthews*. “Newcastle.”—*G. Wailes, Esq.*

Sp. 2. *Populata*. *Alis pallidè flavis, anticis fuscis duabus margineque postico fuscis.* (Exp. alar. 1 unc. 2—3 lin.)

Ph. Ge. *Populata*: *Linné*.—El. *Populata*. *Steph. Catal. part ii. p. 135. No. 6582.*

Wings pale yellow; anterior with a dark sometimes angulated fascia at the base, a broad one in the middle, more or less clouded with yellowish, and with some indistinct darker strigæ; its anterior margin variable in form, sometimes dentate, the posterior bilobate in the middle; the hinder margin of the wings has an oblique dark line at the apex, and from thence to the anal angle is fuscous, with a faint undulated striga arising on the costa, and bordered within with fuscous: cilia immaculate.

Variable in tint; the markings are sometimes very dark, at others light; the form of the fasciæ also varies a little, and some examples are very much clouded with fuscous.

Caterpillar green varied with yellow, with a red-brown spot on each joint, head yellow: it feeds on the poplar:—the imago appears in July.

Not found in the south of England, but apparently very abundant in the north and in Scotland. “Isle of Arran.”—*Dr. Leach*. “Cuddock.”—*T. C. Heysham, Esq.* “Alderley, Cheshire.”—*Rev. E. Stanley*.

Sp. 3. *Spinachiata*. *Alis anticis flavo fulvoque variis strigis tribus angulatis, lineolâque oblique apicis fusco-fulvis, ciliis pallidis fusco maculatis.* (Exp. alar. 1 unc. 4—6 lin.)

Ge. *Spinachiata*. *Haworth*.—El. *Spinachiata*. *Steph. Catal. part ii. p. 135. No. 6580.*

Anterior wings pale luteous with darker clouds, with an angulated fulvous-brown striga near the base, a second towards the middle, and a third behind the middle, the two last forming, with the intermediate space, an open fascia, within which are sometimes two dusky strigæ, having a strong lobe in the middle of its outer edge; towards the hinder margin is an obsolete striga of whitish dots, and at the apex an oblique dark striga; cilia whitish-yellow, with very distinct and remote fuscous spots: posterior wings immaculate. Female less varied, with the strigæ more slender.

Slightly variable as to the form of the angulated strigæ and the comparative distances from each other, as well as in their intensity of colour.

Caterpillar green, with a paler lateral line edged with a darker tint above; it feeds on the gooseberry and currant:—the pupa is pale green: the imago appears about the middle of July.

Abundant in some gardens, especially at Ripley: I have also taken the insect at Hertford, and in my own garden, at the Hermitage. “Epping.”—*Mr. Doubleday*. “Strand-on-the-green.”—*Rev. A. H. Matthews*.

Sp. 4. *testata*. *Alis griseo-fulvis, fasciâ latâ medio saturatiore extus albo marginatâ lineolâque obliquâ apicis albâ antè maculam marginalem hemisphæricam fulvam.* (Exp. alar. 1 unc. 4—5 lin.)

Ph. Ge. *testata*. *Linné*.—El. *testata*. *Steph. Catal. part ii. p. 135. No. 6583.*

Anterior wings griseo-fulvous, with the base darker; and having a rectangular fulvous striga, and the middle with a broad darker a little rectangular fascia, margined on both sides with whitish, its outer edge somewhat bilobed in the middle; at the apex is an oblique white striga, enclosing a somewhat ovate fulvous patch, and shaded off into the pale hue which borders the

central fascia: cilia fuscous: posterior wings whitish, with the hinder margin fuscous.

Said to appear in May, and again in September.

Much less abundant than the last within the metropolitan district: I have taken it in June near Highgate, and have received it from Devonshire. "Epping."—*Mr. Doubleday*. "Dalmeny, near Edinburgh."—*Rev. W. Little*. "Alderley, Cheshire."—*Rev. E. Stanley*. "Newcastle."—*G. Wailes, Esq.* "Garristown-bridge."—*T. C. Heysham, Esq.*

Sp. 5. Achatinata. *Alis anticis luteis, fasciâ mediâ maculâque apicis rufis, albo marginatis.* (Exp. alar. 1 unc. 2 lin.)

Ge. Achatinata. *Hübner?*—El. Achatinata. *Steph. Catal. part ii. p. 135. No. 6584.*

Anterior wings luteous, with the base faintly darker, a central broad rufescent fascia in the middle bordered with white, rounded on the hinder edge, and a little attenuated towards the inner margin; hinder margin clouded, with a rufescent spot towards the apex, bordered by a whitish oblique streak arising at the apex itself: posterior wings whitish.

Caterpillar feeds on the poplar:—the imago appears towards the end of June.

Always considerably smaller than the last, from which it also differs in colour, and in the very decided diversity of form of the central fascia on the anterior wings: whether it be the true Ge. Achatinata of Hübner I have no immediate opportunity of judging*.

Taken near Brockenhurst, in the New Forest. "Newby-cross and Little Orton."—*T. C. Heysham, Esq.*

B. Anterior wings with three strigæ, not banded: palpi very short.

Sp. 6. Pyraliata. *Alis anticis flavis, strigis tribus angulatis serieque macularum lineolâque obliquâ apicis, fulvo-fuscis.* (Exp. alar. 1 unc. 2—5 lin.)

Ge. Pyraliata. *Wien. Verz.*—El. Pyraliata. *Steph. Catal. part ii. p. 135. No. 6585. Albin, pl. xlv. f. 75. a—g.*

Wings yellow, posterior palest; the anterior with three angulated fulvous-brown strigæ, the posterior one nearly beyond the middle of the wing, and the first

* I may here take occasion to remark, that the references to Hübner's beautiful work, in my Catalogue, were made in 1818, from a copy kindly lent to me by A. McLeay, Esq.; since when I have merely been able to procure occasional glances at the copies of Messrs. Children and Haworth, and those mostly without the insects for comparison; consequently some few mistakes may have occurred—the period of examination being so remote, and my experience in these matters less confirmed.

united on the costa to the base by a dark streak; behind the posterior one is a flexuous row of fuscous spots, and at the apex is an oblique streak; the hinder margin is slightly clouded, and the cilia are fuscous at the apex, but immaculate at the anal angle. Female more obscurely marked.

Some specimens are more clouded than others, and in rare instances the strigæ are completely obliterated: they frequently, however, vary a little in position. Caterpillar yellowish-green, with the margins of the segments and the head yellow; it feeds on the whitethorn and bedstraw, &c.:—the imago appears at the end of July.

Very abundant in gardens, and in bushy lanes throughout the metropolitan district. “Epping.”—*Mr. Doubleday*. “Strand-on-the-green.”—*Rev. A. H. Matthews*. “Cummersdale.”—*T. C. Heysham, Esq.* “Raehills.”—*Rev. W. Little*. “Newcastle.”—*G. Wailes, Esq.*

GENUS CCVI.—*CELMA mihi*.

Palpi short, porrected obliquely, acute, very squamous, the terminal joint distinct; triarticulate, the basal joint short, robust, the second longer and slender, terminal minute, subovate: *maxille* short. *Antennæ* simple in both sexes, strongly pubescent in the males: *head* small: *forehead* slightly prominent: *thorax* slender: *wings* entire, placed in a triangle during repose; anterior sub lanceolate, traversed by simple strigæ; posterior immaculate: *abdomen* short and slender, rather obtuse in the female, with a small tuft at the apex in the males; sexes slightly dissimilar, females smallest.

There is doubtless considerable affinity between this and the following genus, but still there exists abundant cause for disuniting them: in the first place the proportions and form of the palpi are very different, as well as the form and texture of the wings, and of the abdomen; the sexes are slightly dissimilar, and the females smaller than the males.

Sp. 1. *imbutata*. *Albido-cinereis, strigâ basi, fasciisque duabus subconfluentibus medio fuscis, externâ rosâ adnatâ.* (Exp. alar. 10—13 lin.)

Ge. *imbutata*. *Hübner*.—*El.?* *imbutata*. *Steph. Catal. part ii. p. 136. No. 6586.*

—*La. imbutata*. *Curtis, vii. pl. 324.*

Anterior wings pale gray slightly clouded, with a brown striga near the base; two open waved fasciæ of the same in the middle, frequently united towards the inner margin of the wing, the basal one slightly incurved, and the outer one somewhat flexuous, with two dentate processes towards the costa, adjoining to which is a rosy tint; near the apex, on the costa, is a brown spot, and at the apex arises a broad waved striga, which extends to the anal angle, forming

a double arch, within which are some black spots on the hinder margin; cilia white, spotted with brown: posterior wings cinereous, with a faint brownish dot towards the base, and a waved striga behind the middle; cilia ashy, more or less clouded with pale fuscous. Female paler, more clouded.

Extremely variable: in some examples the two fasciæ on the anterior wings are almost united into one, in others the space between is almost white, and the fasciæ are remote.

Apparently very common in the north of England, whence I have received numerous examples. “Heaths, Prestwick Car.”—*G. Wailes, Esq.*

GENUS CCVII.—ANAITIS, *Duponchel*.

Palpi long, approximating, porrected obliquely in form of a beak, obtuse, densely clothed with short scales, the terminal joint slightly visible; triarticulate, basal joint curved, rather longer and more robust than the second, which is straight and a little attenuated; terminal minute, conic: *maxillæ* long. *Antennæ* simple in both sexes, slightly pubescent within in the males: *head* small; *forehead* very prominent: *eyes* globose: *thorax* slender: *wings* entire, forming a triangle during repose; anterior acute, traversed by several angular parallel fasciæ, generally divided into bands of three lines each; posterior immaculate: *abdomen* long and slender, the terminal joint considerably elongated, conical in both sexes, slightly fringed in the males, as well as the penultimate joint above, rather stouter in the females; the latter the largest. Larva with 10 legs.

Anaitis being proposed by Duponchel, and briefly characterized before the imposition of the term Larissa, is here employed to designate the present genus, which differs from the foregoing by the dissimilar structure of the palpi, form and strigation of the wings, which are of a different texture, and by the abdomen: the sexes are similar, and the females larger than the males.

Sp. 1. *plagiata*. *Alis cinereo-albidis, anticis strigâ fasciisque duabus trilineatis repandis fuscis.* (Exp. alar. 1 unc. 5—9 lin.)

Ph. Ge. *plagiata*. *Linné.—Don. vii. pl. 233. f. 2.—Aplocera plagiata. Steph. Catal. part ii. p. 141. No. 6624.*

Wings ashy-white; the anterior with an angulated brown striga at the base, broad and unsolid on the costa, and diminishing to a fine line on the inner margin; then two fasciæ in the middle, composed of three strigæ each, and confluent here and there, so as to appear clouded, the former slightly curved, the second somewhat flexuous and biangulated on the outer edge; adjoining

to which is a large unequally suffused rosy blotch, between the first and second strigæ, and behind the posterior one are two other very obscure trilineated fasciæ, sometimes entirely wanting; at the apex is an oblique fuscous striga, and somewhat parallel with the hinder margin is a pale undulated band: cilia slightly clouded with cinereous: posterior wings paler, with an obsolete striga in the middle.

The two central fasciæ are frequently united, and differ as to their relative distances from each other.

Not uncommon in several places within the metropolitan district, especially at Coombe and Darenth Woods, and in Epping-forest; also in Devonshire, the New Forest, Norfolk, &c. "Epping."—*Mr. Doubleday*. "Bottisham."—*Rev. L. Jenyns*. "Oxford."—*Rev. W. T. Bree*. "High Hesket."—*T. C. Heysham, Esq.* "Rae-hills, once."—*Rev. W. Little*.

† Sp. 2. præformata. *Alis anticis griseo-glauciscentibus, fasciis duabus interruptis fusco-ferrugineis; posticis griseo-albidis.* (Exp. alar. 1 unc 6—8 lin.)

Ge. præformata. *Hübner*.—*Ge. pl.* 103. f. 532, 533.—*Larissa præformata. Curtis, fo.* 324.—*Larent. cassiata. Treitschke, vi.* 2. p. 85.

Anterior wings of a bright ashy-grey, with two somewhat interrupted fuscous brown fasciæ in the middle, two rather obscure ones on each side thereof, and a striga near the base.

Differs in being of a larger size; the colours brighter, and the strigæ forming five fasciæ, as it were, on the anterior wings.

Supposed to have been taken at Coombe-wood.

GENUS CCVIII.—SCORIA, *Duponchel*.

Palpi rather long, porrected obliquely, approximating at the apex, clothed at the base with long scales, and at the apex with short compact ones, the terminal joint conspicuous, acute; triarticulate, the basal joint long, robust, second shorter, slender, terminal elongate-ovate: *maxillæ* very long. *Antennæ* stout, simple in both sexes, pubescent in the males: *head* small, squamous; *fore-head* depressed: *thorax* slender, squamous: *wings* entire, with strong somewhat dilated nervures, immaculate; posterior margins of all considerably rounded: *abdomen* long linear, with a laminated tuft in the males; stouter, carinated on the back, and acute in the females.

Duponchel justly rejects the name *Idæa*,—previously used for a genus of exotic Butterflies,—and proposes the above name in lieu, which I have adopted, though somewhat contrary to recent

practice*. From all the preceding genera the totally immaculate superior surface of the wings, exclusively of other characters, at once distinguishes it; but the dark neuration of the under surface of the wings is a very prominent character, which exists in no other indigenous species.

Sp. 1. *dealbata*. *Alis supra albis immaculatis, subtus venis maculâque medio nigris, fasciâque subposticâ fuscâ.* (Exp. alar. 1 unc. 8—9 lin.)

Ph. Ge. *dealbata*. Linné.—*Idæa dealbata*. Steph. Catal. part ii. p. 136. No. 6587.

White above; wings immaculate; beneath the nervures of the anterior wings are dusky-black, the colour suffused so as to cause them to appear dilated, with an obscure repanded striga beyond the middle, the costa and hinder margin also black; posterior wings with the nervures and margin beneath also black, but the colour not suffused: eyes dusky; antennæ and maxillæ fuscous; legs the same, with scattered whitish scales.

Rare: it has occurred in several parts of Kent, and at times not uncommonly: it was formerly taken at Darenth-wood. "Tunbridge Wells."—*J. G. Children, Esq.* "Charing, Kent, once abundantly." *T. Marshall, Esq.*

GENUS CCIX.—ABRAXAS, *Leach*.

Palpi not visible from above, very short, densely clothed with short scales, obtuse; terminal joint concealed; triarticulate, the basal joint short, robust; second longer, compressed; terminal minute, globose: *maxillæ* long. *Antennæ* simple in both sexes, ciliated in the males, fulvous in the females: *head* broad; *fore-head* slightly prominent: *thorax* slender, spotted: *wings* broad, entire, rounded on the hinder margin, expanded during repose; anterior all traversed rather behind the middle by two rows of crowded spots, more or less confluent; posterior ample: *abdomen* spotted, slender in the males, with a slight anal tuft, shorter and stouter in the females, the apex obtuse. Larva with 10 legs, stout, slightly wrinkled, not tuberculated, lineated or maculated: pupa formed in a slight web among leaves.

Amongst other manifest external characters, the luteous, black-spotted abdomen of the insects of this genus form a prominent one;

* The names *Larentia*, *Ennomos*, *Lampetia*, *Halia*, *Zerynthia*, *Idæa*, &c. are twice used in Lepidoptera alone, to distinguish very different insects!

but in addition may be mentioned the breadth and rotundity of the wings, the ground colour of which is white, more or less maculated with black, the spots usually disposed in a somewhat regular striga towards the hinder margin, a little behind the middle: the larvæ are stout, sluggish in motion, and construct a slight web in which to change to pupæ.

Sp. 1. *Ulmata*. *Alis albis, fasciâ basi, alterâque communi pone medium maculari fuscis, luteis plumbisque argenteo parum irroratis*. (Exp. alar. 1 unc. 6—10 lin.)

Ph. *Ulmata*. *Fabricius*.—*Don*. ix. pl. 293. f. 1.—*Ab. Ulmata*. *Steph. Catal.* part ii. p. 136. No. 6589.

Wings white, the anterior fuscous-brown at the base, with a lutescent striga and some silvery clouds; a little behind the middle, towards the costa, a large rounded lead-coloured spot, generally with a pale centre and a brownish iris; behind this is a flexuous striga composed of confluent lead-coloured spots, and terminating on the inner margin in a large blotch, fuscous in the centre with silvery clouds, and luteous on the inner margin; immediately before the origin of this fascia, on the costa, is a somewhat triangular fuscous spot; on the hinder margin are other lead-coloured spots: posterior wings with one or two discoid spots, and a fascia behind the middle resembling that on the anterior wings: body luteous, with various rows of black dots.

Extremely variable: in some instances the wings are clouded throughout with lead colour, arising from the spots of which the strigæ are composed becoming confluent and diffused; in other cases the spots are nearly obliterated, and all intermediate varieties occur.

Caterpillar greenish-blue, with numerous slender black lines, and the head and tail black; it feeds on the elm:—the imago appears about the middle of June.

Extremely abundant, though very local, throughout the north of England; but very rare near London. I possess a specimen captured on Shooters'-hill, and have seen others which were taken near Hackney. "Near Dudley."—*Rev. W. T. Bree*. "Baronwood, Armathwaite."—*T. C. Heysham, Esq.* "Gibside, Meldonpark, Keswick."—*G. Wailes, Esq.* "Hull, Halifax, Dinsdalewood, near Middleton-one-row."—*W. C. Hewitson, Esq.*

Sp. 2. *Pantaria*. PLATE 32. f. 1.—*Alis omnibus albidis, strigâ obliquâ maculari, maculis ad marginem tenuiorem majoribus, anticis basi lutescentibus*. (Exp. alar. 1 unc. 8—9 lin.)

Ph. *Ge. Pantaria*. *Linné*.—*Ab. Pantaria*. *Steph. Catal.* part ii. p. 136. No. 6588.

All the wings whitish; the anterior pubescent at the base, with an obscure dusky ring on the disc towards the costa, behind which is a row of fulvescent



spots, terminating on the inner margin in a large blotch, in the centre of which are some pearlaceous waves; posterior rather buffy at the base, and behind the middle with a double row of small fulvescent spots, terminating near the anal angle in a somewhat triangular blotch, in which are a few pearlaceous waves: head, thorax, and abdomen luteous, the latter somewhat irregularly spotted with black.

One of the rarest of our Geometridæ: it has occurred in the neighbourhood of Oakhampton-park, Somersetshire; and according to Mr. Haworth, on the authority of the late M. Francillon, in Devonshire: I possess a fine specimen from the former locality.

Sp. 3. *Grossulariata*. *Alis albis, anticis basi strigâque posticâ luteis, omnibus maculis rotundatis nigris.* (Exp. alar. 1 unc. 4 lin.—2 unc.)

Ph. Ge. *Grossulariata*. *Linné*.—Ab. *Grossulariata*. *Steph. Catal. part ii. p. 136. No. 6590. Harr. A. pl. 12. f. f—h.*

Wings white; the anterior with the base and a repanded striga behind the middle luteous or buff; the luteous base with some black spots, and margined with the same; the disc rather irregularly spotted, then a regular transverse striga of spots most frequently united towards the inner margin, and followed by another of divided spots, the luteous striga between, and on the hinder margin is a sixth row of black spots: posterior wings without the buff colour, with a few scattered spots on the disc, a transverse striga of the same beyond the middle, and a row on the hinder margin: body luteous, spotted with black.

It is utterly impossible to imagine a more variable insect than this, its phases actually varying from black to white! with all possible intermediate shades: some of the more remarkable varieties may, however, be noticed. One specimen that I have seen is entirely of a sooty black, with the usual markings of a darker hue, and a faint trace of the luteous base and fascia: another has the basal half of the wing black and the apex white; a third just the reverse of the last: some examples want all the spots on the hinder margin of the wings, others have them united: again the base and apex will be immaculate and the centre black. I possess a specimen with the base jet black, then a broad white space, followed by as broad a black fascia, totally obliterating the luteous striga and a marginal row of spots; and what is remarkable, the posterior wings are longitudinally streaked with black: others, pale ones, want the luteous strigæ entirely, while in some that colour so predominates as to cover the surface of all the wings! I have one specimen in which the posterior wings are luteous; a second in which all the wings are luteous, with the black spots nearly obliterated; and Mr. Westwood has communicated a drawing to me of a specimen in which the base and usual strigæ are lutescent, the rest of the wings white, with a fulvous spot on the disc of the anterior, and three or four

minute ones of similar colour adjoining the outer edge of the striga, the black being totally obliterated; a second is marked as usual with luteous, but has only about four minute black dots on all the wings: in fine, specimens have occurred (as may be seen in the British Museum collection) in which all the wings are longitudinally streaked with black!

Caterpillar white, with a luteous lateral line and various rows of irregularly shaped black dots and spots; it feeds on the currant, blackthorn, &c.:—the imago appears about the middle of July.

This beautiful insect, according to the communications that I have received, seems to occur in profusion throughout the country.

GENUS CCX.—MELANIPPE, *Duponchel*.

Palpi remote, short, slightly projecting beyond the forehead, slender, acute; triarticulate, the basal joint shorter, a little curved, second equally robust, terminal very small, acute: *maxillæ* long. *Antennæ* slender, simple in both sexes, faintly pubescent within in the males: *head* small; *forehead* slightly prominent: *eyes* small: *thorax* slender: wings ample, entire, rounded, partially expanded during repose, all terminated by a broad dark interrupted band: *abdomen* short, slender, and subclavate in the males, with a very small anal tuft; more robust and obtuse, and carinated in the females; annulated in both sexes. Larva with 10 legs, not tuberculated, with lateral flexuous lines: pupa folliculated.

The only indigenous species of this genus is readily known by its pure black and white wings, the proportions of which are so near that authors are divided as to the prevalence of the individual colours, some taking the former, and others the latter for a ground colour, which it appears clear is the most correct view, taking the positions of the markings, &c. into consideration. From the preceding genus it differs by having the palpi remote, acute, the antennæ slender and not ciliated in the males, the wings bordered with a partially interrupted black fimbria.

Sp. 1. *hastata*. *Alis albis, fasciis duabus macularibus, limboque communiter nigris*. (Exp. alar. 1 unc. 4—6 lin.)

Ph. Ge. *hastata*. *Linné*.—*Don*. iv. pl. 129. f. 123.—*Xerene hastata*. *Steph. Catal. part ii. p. 137. No. 6592*.

Wings white, with a broad black fascia at the base, traversed by a curved white striga; a second fascia near the middle, separated from the first by a white space, in which is a row of black dots, the fascia itself interrupted and

irregularly spotted with white, behind this is a broad white space, in which is generally a second row of black dots; the margins of all the wings are black, with an undulated whitish line on the costa, a spear-shaped mark on the middle of the inner edge, and two white dots at the anal angle: cilia black interrupted with white: head and thorax black with small whitish dots: abdomen black with white rings.

Slightly variable; the rows of black spots being sometimes wanting; and the fasciæ a little variable in form.

Caterpillar fuscous-brown, with lateral flexuous yellow lines; it feeds on the birch:—the imago appears about the beginning of June.

Rather scarce: I have taken a few specimens at Darent-wood, and at one particular hedge at Coombe-wood, near the ice-house, a considerable number. “Allesley.”—*Rev. W. T. Bree*. “Epping.”—*Mr. Doubleday*.

GENUS CCXI.—XERENE, *Treitschke*.

Palpi remote, not visible from above, very short, densely clothed with compact scales; terminal joint slightly visible, acute; triarticulate, the two basal joints stout, the first the most robust, terminal minute-ovate: *maxillæ* very long. *Antennæ* slender, simple in both sexes, slightly pubescent in the males: *head* small; *forehead* rounded, prominent: *eyes* lateral, globose: *thorax* slender; the latter with the head and base of the wings of a dark hue: the *wings* entire, rounded, more or less distinctly bordered with a deeper colour than the ground, rarely with a central fascia; the marginal band generally somewhat interrupted: *abdomen* rather long, slender in the males, with a slight anal tuft, robust and obtuse in the females. Larva with 10 legs, robust, not tuberculated, laterally spotted and streaked: pupa subterraneous.

Xerene differs from the foregoing genus by the structure and proportions of the palpi, the forehead being more produced, the wings being narrower and less distinctly bordered, the border more or less spotted; the head, thorax, and base of the anterior wings are always of a dark hue, and the latter are rarely banded in the middle.

Sp. 1. *albicillata*. *Alis lacteis, anticis basi maculâque costali picco-nigris, fimbrique communi plumbeâ albido undulatâ*. (Exp. alar. 1 unc. 4–6 lin.)

Ph. Ge. *albicillata*. *Linné*.—*Don*. vi. pl. 202. f. 2.—*Xe. albicillata*. *Steph. Catal. part ii. p. 6593*.

Head, thorax, base of the abdomen pitchy-black; anterior wings milk-white; the base the same, striped with lead-colour and sinuated without; towards

their apex with a large somewhat trigonal-ovate brown-black spot on the costa near the apex, whence arises a beautiful geminated striga, black, with remote triangular dots within, and pale fuscous without, which terminates in a small blackish spot on the inner margin; the posterior margin beyond this plumbeous, varied with whitish and cinereous, with an undulated whitish line: posterior wings also milk-white, with a geminated striga, as before, towards the margin, which latter is fuscous slightly interrupted with whitish; in the centre of all the wings is a black dot.

Caterpillar green, the anterior and posterior segments with a lateral brown line, the intermediate with a dorsal lunule of the same:—it feeds on the raspberry (*Rubus Idæus*): the imago appears towards the end of June.

Rare in the immediate vicinity of London; but more abundant in the lower parts of Kent, and in Norfolk. “Baron-wood, Armathwaite.”—*T. C. Heysham, Esq.* “Meldon-park, Gibside, &c.”—*G. Wailes, Esq.* “Tunbridge-wells.”—*J. G. Children, Esq.*

Sp. 2. *procellata*. *Alis niveis, anticis basi fasciâ abbreviatâ costali limboque fuscis, ultimo maculâ albâ.* (Exp. alar. 1 unc. 4—6 lin.)

Ge. *procellata*. *Wien. Verz.*—Xe. *procellata*. *Steph. Catal. part ii. p. 137. No. 6594.*—Ge. *porcellata*. *Don. vi. pl. 502. f. 3.*

Head, thorax, and base of the anterior wings black, the rest of the wings snow-white, with a rhomboid fuscous spot on the middle of the costa, from the inner edge of which arise some faint undulated strigæ, the outer ones being most evident; the posterior margin is also broadly fuscous, with an interrupted white waved striga, and a quadrate spot of the same in the middle; towards the base of the inner margin is an acicular black mark: posterior wings white, with faint undulated fuscous strigæ, and a narrow darker marginal band, the latter sometimes with an undulated white striga within.

Not uncommon in the neighbourhood of Darenth and Birch Woods: I have also taken it at Hertford, and near Dover. “Strand-on-the-green.”—*Rev. A. H. Matthews.* “Epping.”—*Mr. Doubleday.* “Tunbridge.”—*J. G. Children, Esq.*

Sp. 3. *adustata*. *Alis anticis albidis basi fasciâque posticâ sinuatâ crenatâ fulvo-nigris, adustatis.* (Exp. alar. 1 unc.—1 unc. 1 lin.)

Ge. *adustata*. *Wien. Verz.*—Xe. *adustata*. *Steph. Catal. part ii. p. 6595. Harris Exp. pl. 5. f. 1.*

Head and thorax fuscous: base of the anterior wings the same, of a fulvous-black; wings whitish or cream-coloured, with a repanded or sinuated fascia towards the hinder margin, crenate without, fulvous-black, or umbre-coloured, with darker spots; behind this the wing is more or less clouded with fuscous or

black, and has a row of spots of the latter colour on the margin; cilia white slightly clouded with fuscous: posterior wings also white, with a few black dots on the inner margin, and some brownish waved strigæ behind the middle: cilia white.

Slightly variable: in some examples the anterior wings are clouded with fuscous and black in the middle; and the posterior have a distinct subcentral fuscous fascia.

Caterpillar green, with a white marginal spot, dotted with red; it feeds on the spindle-tree (*Euonymus Europæus*):—the imago appears at the end of June, and towards the middle or end of August.

Abundant, but local, in several of the chalky districts round the metropolis, especially at Darenth-wood; also at Coombe, Hertford, Ripley, &c. “Epping.”—*Mr. Doubleday*. “Strand-on-the-green.”—*Rev. A. H. Matthews*.

Sp. 4. *rubiginata*. *Alis niveis basi fasciâque interruptâ medio fulvo fuscoque variis; limbo omni postico plumbeo, strigâ albicante.* (Exp. alar. 9—13 lin.)

Ge. *rubiginata*. *Wien. Verr.*—Xe. *rubiginata*. *Steph. Catal. part ii. p. 137. No. 6596.*—*Wilkes's Des. pl. 4. f. 5.*

Head and thorax fuscous: anterior wings snow-white, with the base red-brown or dusky: an irregular interrupted fascia in the middle, very much attenuated towards the inner margin and usually interrupted in the middle, with a conspicuous somewhat ocellar black dot towards the costa; the posterior margin lead-coloured, with an undulated whitish striga: posterior wings also snowy, with a fuscous dot in the middle of the hinder margin pale lead-colour, with a faint whitish striga.

A little variable in the form of the central fascia on the anterior wings.

Caterpillar slender, green, with a pale dorsal line and a yellowish-green lateral one; it feeds on the alder:—the imago appears towards the end of June, and a second time about the end of August.

Also local, but at times extremely abundant: in 1827 it abounded in a garden at Ripley, so as to become a pest of an evening. “Strand-on-the-green.”—*Rev. A. H. Matthews*. “Raehills.”—*Rev. W. Little*. “Newcastle, Meldon-park.”—*G. Wailes, Esq.*

Sp. 5. *plumbata*. *Alis anticis plumbeis aut cinereo-albidis, basi fasciâque medio saturatioribus, limbo atro-plumbescente strigâ undulatâ albidâ.* (Exp. alar. 1 unc.—1 unc. 2 lin.)

Xe. *contaminata?* *Steph. Catal. part ii. p. 138. No. 6597.*—Xe. *plumbata*.—*Curtis Guide?*

Head and thorax fuscous: anterior wings lead-coloured or ashy-white, with a

sinuated dusky fascia at the base, and a second very much attenuated behind and sometimes interrupted, in the middle both obscurely marked with paler strigæ, and the latter with a conspicuous black dot towards the costa; posterior margin of a deep-lead colour, with a brighter cloud towards the middle and a waved pale striga: posterior wings ashy-lead, with a darker fimbria in which is a pale striga.

Extremely variable; one of my specimens has the anterior wings of a deep fuscous, with a broad perfect fascia in the middle, which as well as the basal one is bordered with whitish, of a darker hue; the posterior margin has an undulated pale striga, and a conspicuous pale-ashy spot in the middle.

This is not the *Ge. contaminata* of Hufnagle, which is given as a variety of the preceding insect; a point I have ascertained by a recent examination of the *Berlinsche Magazine*, as referred to in my Catalogue; but as it is probably the *Xe. plumbata* of Curtis's Guide, I have employed that name.

All the examples of this singular species which I have seen were taken in "Forfarshire."—*C. Lyell, Esq.*

GENUS CCXII.—EUTHALIA * *mili*.

Palpi elongate, approximating, forming a sort of beak, acute, very densely clothed with long scales, the terminal joint scarcely visible; triarticulate, the basal joint curved, robust; second as long, slightly attenuated; terminal minute, conic: *maxillæ* rather long. *Antennæ* simple in both sexes, slightly pubescent within in the males: *head* small; *forehead* prominent: *eyes* small: *thorax* slender, with a bifid crest behind: *wings* entire, rounded on the hinder margin: anterior fasciated transversely, posterior with a central dot and some transverse strigæ: *abdomen* tufted on the back, long, and very slender in the males, with a rather large anal tuft: in the females stouter and shorter, very acute at the apex. Larva with 10 legs, slightly pilose, stout, without tubercles, lineated: pupa in a folliculus among leaves.

In the position of this genus I have reverted to the original sketch of my Catalogue, from a re-examination of the family: in the present genus green forms a prominent colour—whence the name—and it may be readily known from all the preceding genera by the greater comparative length of the palpi, which approximate and project forwards in the form of a beak, the wings are more or

* Ευ, benè; ελλω, vireo.

less distinctly and thickly fasciated, the fascia composed of numerous waved strigæ.

The name *Ypsipetes*—properly *Hypsipetes*—having been recently employed to designate a genus of birds, necessarily falls; I have therefore substituted the above for the present insects.

Sp. 1. *miata*. *Alis anticis albido-viridibus, fasciâ basi, alteraque medio saturationioribus, posticis viridi-albicantibus, puncto centrali in omnibus nigro.* (Exp. alar. 1 unc. 1—3 lin.)

Ph. *Ge. miata*. *Linné.*—*Don.* xiv. pl. 479. f. 3.—*Harpalyce miata*. *Steph. Catal. part ii. p. 131. No. 6568.*

Anterior wings green, with a fascia at the base and another in the middle of a deeper hue; the hinder margin is also dark, and has an obscure undulated whitish striga, and on the margin itself is a line of geminated black dots: posterior wings greenish-white, with some darker undulated strigæ towards the margin, and on the latter a row of geminated black dots: all the wings with a central black dot.

Rather variable in colour, being sometimes slightly tinted with flavescent; and in some rare cases the pale strigæ on the anterior wings are slightly tinted with red:—the fasciæ as usual vary in width.

Caterpillar pale-green dotted with red; it feeds on the bramble:—the imago appears in the autumn.

Not uncommon in several places within the metropolitan district. “Bottisham, not unfrequent in the autumn.”—*Rev. L. Jenyns*. “Meldon-park, Newcastle, &c.”—*G. Wailes, Esq.* “Newby-cross, Orton, &c.”—*T. C. Heysham, Esq.* “Epping.”—*Mr. Doubleday*.

Sp. 2. *Psittacata*. *Alis anticis rufo-viridibus nigro undatis, fasciâ basi alteraque medio saturationioribus rufo-viridibus; posticis fuscis.* (Exp. alar. 1 unc. 1—2½ lin.)

Ph. *Psittacata*. *Fabricius.*—*Ha. Psittacata*. *Steph. Catal. part ii. p. 134. No. 6569.* Ph. *rubroviridata.*—*Don.* xiv. pl. 485. f. 3.

Anterior wings pale red-green, undulated with black, with a darker fascia at the base, and a second broad one in the middle, also tinted with red-green: towards the apex of the costa are some whitish abbreviated strigæ, which are continued as pale waved lines, which again become white on the inner margin; the central fascia has a transverse black streak uniting its two edges, as it were, within; and near the apex of the wing are some minute black dots; and on the hinder margin is a row of geminated black points: posterior wings fuscous, with a central dot and some obscure marginal strigæ.

Variable a little in colour, and on the outer margin of the anterior wings is frequently a whitish undulated striga.

Caterpillar yellow or dull green.

Less abundant than the last, but nevertheless not uncommon within the metropolitan district. “Bottisham, less common than the preceding.”—*Rev. L. Jenyns*. “Baron-wood.”—*T. C. Heysham, Esq.*

Sp. 3. *impluviata*. *Alis griseo-fuscescentibus, anticis, basi fasciâque latâ undatâ pone mediam albicantibus, lineolis atris ad apicem.* (Exp. alar. 1 unc. 2—3 lin.)

Ge. *impluviata*. *Wien. Verz.*—*Ypsipetes impluviata*. *Steph. Catal. part ii. p. 138. No. 6598.*—*Ph. literata*. *Don. xiv. pl. 499. f. 2.*

Anterior wings with the base whitish, or cinerascens, sometimes tinted with greenish, and bordered externally by an oblique nearly straight black line, followed by a more or less solid fuscous fasciæform space; then a whitish or cinerascens broad curved fascia, in which is a short fuscous line near the costa; behind this fascia is a second fasciæform space, which has frequently a waved striga passing through its middle; the hinder margin is pale, with one or more black streaks towards the costa, and sometimes an oblique one at the apex: posterior wings fuscous, sometimes with obscure, waved, strigæ towards the hinder margin.

Rather variable; in some instances the fascia on the anterior wings is scarcely perceptible, in others the inner margin of the wing is clouded with black; and in one of my specimens the space between the base and the fascia and the hinder margin is rufo-piceous, with undulated black strigæ.

Caterpillar reddish-brown slightly clouded, with a pale lateral and two dorsal lines; head reddish: it feeds on the birch and hazel:—the imago appears towards the end of May.

Not common within the metropolitan district. I have taken specimens at Coombe and Darent Woods; it appears to be more frequent in the north. “Meldon-park.”—*G. Wailes, Esq.*

Sp. 4. *elutata*. *Alis anticis viridibus aut rufescentibus atomis strigisque nigris, fasciâque pone medium albidâ, posticis cinereo-fuscis.* (Exp. alar. 1 unc. 1—3 lin.)

Ge. *elutata*. *Wien. Verz.*—*Yp. elutata*. *Steph. Catal. part ii. p. 138. No. 6599.* *Albin, pl. xlv. f. 73. c—h.*

Anterior wings green or reddish, more or less irrorated with black, and irregularly strigated and clouded with the same, the strigæ being more or less confluent and divided, and sometimes almost broken into spots; one rather before the middle is generally the most conspicuous, and is angulated out-

wardly; beyond this is generally a clear space or fascia, sometimes very distinct, conspicuous, and whitish, but this is also occasionally broken into large spots placed transversely; the hinder margin is strigulated and varied with black or fuscous, and has very frequently a white spot towards the middle, and an oblique black line at the apex; the extreme edge of the margin has generally a row of black spots; cilia clouded with fuscous at the base: posterior wings ashy-brown, sometimes with waved strigæ.

Extremely variable both in colour and tint, scarcely two examples occurring alike in every respect. I possess an extensive series from Cumberland, which certainly have the habit of a distinct species; they vary exceedingly from each other, more, if possible, than in the type: one is entirely fuscous, with some faint virescent strigæ; a second remarkable one is whitish-green, thickly varied with interrupted fuscous strigæ and spots, with an undulated rufescent line on the hinder margin; a third is virescent thickly irrorated throughout with minute fuscous dots, and with a single obscure fascia towards the base;—these varieties I considered as identical with the *Ge. horridaria* of Haworth's *Prodomus*.

A very abundant species throughout the south of Britain, and apparently not uncommon in the north. "Great and Little Orton."—*T. C. Heysham, Esq.* "Raehills."—*Rev. W. Little.* "Strand-on-the-green."—*Rev. A. H. Matthews.* "Tynemouth."—*G. Wailes, Esq.*

GENUS CCXIII.—PHIBALAPTERYX * *mihi*.

Palpi short, approximating, projecting beyond the forehead, subclavate, obtuse, triarticulate, the two basal joints of equal length, the first curved, the second slightly attenuated and a trifle more slender, terminal elongate-ovate, acute: *maxillæ* long. *Antennæ* robust in the males, subserrated and pubescent within, simple and slender in the females: *head* rather broad, *forehead* densely squamous: *eyes* globose: *thorax* slender: *wings* entire, placed in a triangle during repose; anterior rather narrow elongate sublanceolate, with oblique imperfect strigæ, sometimes condensed into an insolid central fascia; posterior ovate-triangular, with transverse strigæ: *abdomen* moderate, slender, carinated down the back, the apex of the male with a short broad tuft, of the female obtuse. *Larvæ* with ten legs, not tuberculated, with pale longitudinal lines: pupa subterranean.

There is almost too great a disparity among the few insects here associated to warrant their being included in one genus; but at

* Φιβαλας, *gracilis*; Πτερον, *ala*.

present I have not thought proper to detach the discrepant ones, not having an opportunity of properly investigating all the species: they may be known from the foregoing genera by the anterior wings being generally elongate, obliquely strigated with fuscous or dark lines, on a paler fuscous or cinereous ground, and rarely disposed in a central fascia as in most of the preceding insects.

Sp. 1. *tersata*. *Alis fusco-griseis, strigis punctisque obsoletis nigrescentibus, lineâ dentatâ albidâ ad marginem posticum.* (Exp. alar. 1 unc. 3—5 lin.)

Ge. *tersata*. *Wien. Verz.*—Rh. *tersata*. *Steph. Catal. part ii. p. 138. No. 6601.*

Griseous-brown; all the wings somewhat clouded, with numerous obsolete dusky strigæ, forming a very obscure oblique broad central fascia, in which is a conspicuous black dot towards the costa; towards the hinder margin is an obsolete whitish dentate line, and on the margin itself is an interrupted black line; the posterior wings are somewhat paler, and the strigæ more evident, especially on the nervures.

Caterpillar brown, with a paler dorsal line varied with white, and a grey lateral one: the sides somewhat spotted with brown and black: it feeds on the Traveller's joy (*Clematis Vitalba*):—the imago appears in June.

Local, but not common in the vicinity of Darenth and Birch Woods; also at Hertford and Ripley.

Sp. 2. *vitalbata*. *Alis anticis albedo-griseis, costâ fuscâque latâ obliquâ perfuscis, posticis albidioribus lineis undatis fuscis.* (Exp. alar. 1 unc. 1—4 lin.)

Ge. *vitalbata*. *Wien. Verz.*—Ph. *vitalbata*. *Steph. Catal. part ii. p. 138. No. 6602.*

Anterior wings griseous-white, with the costa and a broad, very oblique, fascia, arising at the apex and terminating near to the base of the inner margin, and sometimes slightly interrupted in the middle; between this and the anal angle are some irregular fuscous streaks, and a whitish, or pale, waved line, and towards the costa a black dot; the posterior wings are whitish, with numerous fuscous strigæ condensed into an open fascia towards the middle, and darkest on the inner margin; on the hinder margin of all the wings is an interrupted black line; and a black dot in the middle of the posterior.

Slightly variable: some examples being of a lighter hue than others, and some more varied.

Found in the same localities with the preceding insect.

† Sp. 3. *polygrammata*. *Alis ex flavo-albidis, anticis strigis numerosis fasciisque duabus fuscis; posticis fusco-lineatis.* (Exp. alar. 1 unc. 1 lin. ?)

Ge. *polygrammata*. *Hübner.*—Ph. *polygrammata*. *Steph. Catal. part ii. p. 139. No. 6606.*

Wings of a yellowish-white, the anterior with numerous fuscous strigæ, and two transverse fasciæ of a similar hue, with a black dot towards the middle near the costa: posterior wings lineated with fuscous.

I believe this insect has been taken in Norfolk.

Sp. 4. *lignata*. *Alis pallide griseis, strigis saturatioribus, anticis fasciis duabus obliquis fuscis, anticâ costam versus pallidiore puncto atro.* (Exp. alar. 1 unc.—1 unc. 1 lin.)

Ge. *lignata*. *Hübner*.—Ph. *lignata*. *Steph. Catal. part ii. p. 138. No. 6603*.—Ph. *lineataria*. *Don. xiv. pl. 485. f. 1. 2.*

Wings pale griseous, with darker strigæ; the anterior with an oblique fuscous fascia in the middle, somewhat angulated posteriorly near the costa, and attenuated and darker towards the inner margin, with a black dot towards the costa; behind this is a very oblique and less perfectly defined fascia, extending from the inner margin to the apex of the wing, and composed as it were of three or four strigæ, divaricating towards the apex; posterior wings paler, with a central dot and some slightly waved lines; the margin of all with a row of geminated black dots.

Slightly variable, and the female of a paler hue than the male, which has the antennæ strongly ciliated.

The strongly ciliated antennæ of the males and the slight dissimilarity of the sexes seem to point out the impropriety of retaining this species in the same genus with Ph. *tersata* and Ph. *Vitalbata*: Ph. *lineolata* also differs from its congeners.

Not common: I have taken it in Battersea-fields, and it has occurred in the neighbourhood of Cambridge, and in the New Forest.

Sp. 5. *lineolata*. *Alis cinerascens, fasciis duabus obliquis fuscis lineolisque albidis.* (Exp. alar. 9—11 lin.)

Ge. *lineolata*. *Wien. Verz.*—Ph. *lineolata*. *Steph. Catal. part iii. p. 138. No. 6605.*

Wings ashy, somewhat plumbescens in the males, the anterior with several oblique straight darker strigæ, and two somewhat griseous fasciæ in the middle edged with white, between which is a blackish spot; at the apex is a very oblique fuscous streak, and on the hinder margin a slightly interrupted fuscous line; posterior wings paler, with several slightly waved darker strigæ, and an interrupted fuscous line on the hinder margin; cilia of all fuscous at the base, pale at the apex, with dusky shades. Female smaller, sometimes whitish-ash, with the central fasciæ united into an insolid fascia.

Slightly variable: some specimens being less thickly strigulated than others, and the ground colour being slightly dissimilar.

Caterpillar slender, with the head brown, the back reddish-brown, the sides with a broad yellow striga: it feeds on the *Galium verum*:—the imago frequents chalky wastes, and appears towards the end of June, or beginning of July.

Very local, but apparently extremely abundant where found: it has been found near Brighton and Lewes in Sussex, and in Devonshire. “On the Devil’s Ditch and Newmarket Heath.”—*Rev. L. Jenyns*.

†Sp. 6. *angustata*. *Alis griseo-fuscis, fasciâ obliquâ angustâ fuscâ medio, puncto ordinario ocellari atro.* (Exp. alar. 11 lin.)

Pha. angustata. Haworth.—*Phi. angustata.* *Steph. Catal. part ii. p. 139. No. 6607.*

Wings rufo-fuscous, slightly clouded, with an obsolete crenate fascia in the middle, somewhat incrassated towards the costa, near which is an ocellated spot, having a whitish iris and black pupil: posterior wings as in *Ph. lignata*, but of a deeper tinge; the hinder margin of all with some obsolete fuscous dots.

I have seen three specimens only of this insect, of which one was in the collection of G. Milne, Esq.; another in that of the late Mr. Latham, who caught his specimen, which I saw alive, in a garden at Camden-town, about ten years since, at the end of September; and the third in that of Mr. Haworth.

GENUS CCXIV.—LOZOGRAMMA* *miki*.

Palpi very short, remote, scarcely projecting beyond the forehead, acute, tri-articulate; the basal joint larger and more robust than the second, slightly curved; the second very short, cylindric; terminal minute, ovate, acute: *maxillæ* long. *Antennæ* rather stout, very distinctly annulated, faintly pubescent within in the males, slighter and simple in the females: *head* small: *eyes* globose: *thorax* slender: *wings* entire, placed in a triangle during repose; anterior broad triangular, with two pale oblique lines bordered within with a darker tinge, and a dusky central spot; posterior ample, ovate-triangular: *abdomen* very slender, rather elongate, and with a tuft at the apex in the males, short, and obtuse, with a slight tuft in the females: *legs* rather elongate: *tibiæ* dissimilar, anterior very short, subclavate, intermediate slender, posterior elongate, thickened, and in the males producing a fan of hair on the inner side.

* Λοζογ; obliquus; Γραμμη, linea.

The very dissimilar form of the wings in this genus, as well as the dissimilarity in structure and length of the palpi, and the remarkable posterior tibiæ of the insects of this genus, at once show the necessity of keeping it distinct from the foregoing, in which the palpi are long, and the posterior tibiæ in both sexes simple.

Sp. 1. *petraria*. *Alis nitentibus, flavescenti-cinereis anticis strigis tribus obliquis rectis albicantibus, intus fusco adnatis.* (Exp. alar. 1 unc. 2—4 lin.)

Ge. *petraria*. *Hübner*.—Ph. *petraria*. *Steph. Catal. part ii. p. 141. No. 6623.*

Wings glossy, yellowish-ash, slightly pulverulent; anterior with three whitish oblique strigæ bordered internally with fuscous, the anterior vanishing towards the costa, and placed before the middle, obscurely bent; the second behind the middle, deeply bordered within and very straight, and between these a fuscous dot; and between the posterior striga and the hinder margin is an obscure whitish undulated striga; posterior wings paler, with an abbreviated striga on the inner margin behind the middle, and the hinder margin fuscous; all the cilia immaculate.

Common on heathy places where fern abounds in the neighbourhood of London, especially at Coombe-wood, and near Hertford. “Rockliff, Orton, &c.”—*T. C. Heysham, Esq.* “Epping.”—*Mr. Doubleday.*

GENUS CCXV.—SCOTOSIA* *mihi*.

Palpi long, slender, porrected in form of a beak, closed with long pilose scales at the apex and nearly concealing the terminal joint; triarticulate, the basal joint short, robust, curved; the second longer, rather slender at the base, and a little attenuated at the apex; terminal elongate, lanceolate: *maxillæ* rather long. *Antennæ* simple in both sexes, slightly pubescent within in the males: *head* small, with a fascicle of scales anteriorly between the *eyes*, which are globose and prominent: *thorax* slender with a squamous tuft behind: *wings* disposed in a triangle during repose; anterior slightly indented; posterior deeply crenate on the hinder margin, all transversed with numerous more or less distinct oblique dark lines: *abdomen* slender, very long, and tufted at the apex in the males, the terminal joint produced into two broad elongate vertical laminæ extending beyond the tufts; shorter and carinated down the back in the females, with a short anal tuft. Larva with 10 legs, simple, lineated: pupa subterranean.

* ΣΚΟΤΟΣ, caligo.

The crenated posterior margin of all the wings at once distinguishes this genus from the foregoing genera with simple antennæ, and the narrowness of the anterior wings combined with their dullness, indistinct or oblique strigations, dissimilarity in the length and structure of the palpi and elongation of the abdomen of the males, serve to distinguish it from *Triphosa*, exclusively of the diversity in the period of flight, the insects of the present genus revelling in the obscurity of midnight, or appearing in greatest plenty very late in the evening.

Sp. 1. *Rhamnata*. *Alis fusco-castaneis, lineis undatis obscurioribus, anticis fasciâ obliquâ medio fuscâ punctoque nigro.* (Exp. alar. 1 unc. 6—8 lin.)

G. *Rhamnata*. *Wien. Verz.*—Sc. *Rhamnata*. *Steph. Catal. part ii. p. 139. No. 6609.*

Wings of a castaneous-brown, with various darker waved lines, and a paler undulated one near the posterior margin, the anterior with a broad deep brown fascia in which is a black dot, the middle sometimes broken into waved lines—deeply angulated towards the costa, the outer angle bilobed, and somewhat crenate towards the inner margin: on the hinder margin of all the wings is a waved blackish line, and the cilia are clouded with fuscous.

Caterpillar green, with a fuscous dorsal line and the margins of the segments yellow; head brown; it feeds on the Buckthorn (*Rhamnus catharticus*):—the imago appears about the end of May or beginning of June.

Local, but not very uncommon where found: I have taken it repeatedly at Darent-wood, and not unfrequently at Hertford. “Strand-on-the-green.”—*Rev. A. H. Matthews*. “Epping.”—*Mr. Doubleday*.

Sp. 2. *vetulata*. *Alis fuscis, fasciâ medio, strigisque undatis communibus obsoletissimis saturationibus albido adnatis, anticis puncto medio fusco.* (Exp. alar. 1 unc. 2—3 lin.)

Ge. *vetulata*. *Wien. Verz.*—Ge. *vetulata*. *Steph. Catal. part ii. p. 139. No. 6610.*

Fuscous; anterior wings with numerous very obscure waved fuscous strigæ, and condensed into a fascia in the middle of the anterior, and alternating as it were with very obsolete whitish ones; in the central fascia towards the costa is a dusky spot: posterior wings similar: towards the hinder margin of all is a fuscous waved line; cilia immaculate.

Caterpillar gray-brown, with a white dorsal line and a yellowish lateral one, head brown; it feeds on the buckthorn:—the imago appears towards the end of June.

More uncommon than the preceding: the only places where I have found it being at Darenth and Coombe Woods, and in a lane near Fulham. "Coleshill."—*Rev. W. T. Bree*. "Epping, common in one spot, near a bog in the forest."—*Mr. Doubleday*. "Strand-on-the-green."—*Rev. A. H. Matthews*.

Sp. 3. *Sparsaria*. *Alis fuscis, strigis communibus obsoletissimis saturationibus et albidis, atomisque atris, anticis puncto medio nigro.* (Exp. alar. 1 unc.)

Ge. *Sparsaria*. *Hübner*.—Sc. *Sparsaria*. *Steph. Catal. part ii. p. 139. No. 6611.*

Pale fuscous: wings with an obsolete dark waved striga and some whitish and more distinct ones towards the hinder margin, on which is an interrupted black line bordered externally with white; on the nervures are some scattered black dots, and a spot of the same on the disc of the anterior wings, besides which on the costa of the latter are some irregular blackish clouds, indicating the origin of the usual strigæ of the Geometridæ.

I believe the only locality for this species (of which I have not seen the male) is the New Forest, where several examples have been captured towards the end of June.

GENUS CCXVI.—TRIPHOSA * *mihi*.

Palpi moderate, rather stout, projecting in the form of a beak, clothed with short scales, acute at the apex; triarticulate, the basal joint slightly incrassated and curved; the second shorter, a little attenuated at the apex, the terminal short, ovate: *maxillæ* long. *Antennæ* very slender, simple in both sexes, rather pubescent within in the males: *head* small; *forehead* slightly prominent: *eyes* globose: *thorax* slender: *wings* placed in a triangle during repose; anterior sinuated on the hinder margin, and transversed by an unsolid central fascia, lobate or crenate without; posterior ample, indented on the hinder margin with very obsolete transverse strigæ: *legs* long, slender, posterior tibiæ simple. Larva with 10 legs, stout, with pale longitudinal hairs: pupa subterranean.

Triphosa differs from *Scotosia* not only by having the wings, especially in the type, extremely glossy, and of dissimilar form and markings, but the second joint of the palpi is manifestly shorter than the basal one, and the palpi themselves are altogether shorter though comparatively stouter. This and the preceding genus form the

* *Τριφωσα*, valdè lucens.

genus *Larentia* of Duponchel and Curtis, but *not one* of Ochsenheimer's species of *that genus* belongs thereto, consequently it becomes necessary to employ a different term here; the error of the above writers arising from their having attended to the *mere name* of the typical species (*La. cervinata*, see p. 211), without taking the pains to investigate beyond, which had they done they might have ascertained that *Hübner's* original *Ge. cervinata* (since changed by him to *Ge. certata*) was not the *La. cervinata* of Ochsenheimer, but belonged to a different genus.

Sp. 1. *cervinata*. *Alis griseis, anticis strigis duabus validis fasciæformibus medio, punctoque interjecto fuscis.* (Exp. alar. 1 unc. 8—10 lin.)

Ge. cervinata. *Hübner, pl. 51. f. 266.*—*Tr. cervinata.* *Steph. Catal. part ii. p. 139. No. 6614.*

Griseous-brown; anterior wings with various obsolete strigæ or fasciæ at the base, two narrow stouter fasciæ in the middle, of which the exterior is somewhat triangulated, and between them is a short black line a little within the costa—the fascia are frequently united in the middle, and form a broad insolid central band—towards the hinder margin is an undulated pale striga, and on the hinder margin itself a slightly interrupted black line: cilia with obscure dusky clouds; posterior wings fuscous, with various darker waved paler and darker strigæ, and a distinct central dot: cilia obscurely clouded.

Varies considerably in colour: one example that I possess has the ground colour of the wings very pale, with the central fascia very distinct; another is almost entirely of a deep fuscous, with the usual lines and strigæ darker, and the costa of the anterior wings clouded with pale cinereous.

Caterpillar with the head brown, the back grayish, with paler stripes on the sides, the underside pale with green spots; it feeds on the barberry (*Barberis vulgaris*):—the imago appears in April.

Rare: I have taken specimens in the neighbourhood of London, and it has occurred in other parts.

Sp. 2. *dubitata*. *Alis nitidis, anticis griseo fuscescentibus tincturâ purpurascens, fascia crenatâ insolidâ medio saturatiore, posticis griseis lineis undatis obscurioribus.* (Exp. alar. 1 unc. 8—10 lin.)

Ph. Ge. dubitata. *Linné.—Don. vii. pl. 246. f. 2.*—*Tr. dubitata.* *Steph. Catal. part ii. p. 139. No. 6612.*

Fuscous, shining: anterior wings with a brilliant tinge of purple, the base with numerous dark crenated strigæ and paler intermediate ones; towards the middle is a broader dark one, forming as it were the outline of a central fascia, and behind the middle is a second, which composes the same; this has a sharp

angle near the costa of the wing, and is somewhat waved towards the inner margin; near the hinder margin is an undulated whitish striga, and on the margin itself is a black line: posterior wings pale griseous, with various darker and paler obscure waved lines: cilia purplish.

Variable in tint, and in the strength and boldness of the transverse fascia.

Caterpillar green, somewhat lineated with fuscous and pale streaks, and with a yellow lateral line; it feeds on the Buckthorn (*Rhamnus catharticus*):—the imago appears about the middle of July, and towards the middle of May.

Common in some places, especially in the vicinity of Ripley; also at Darenth and Birch Woods. “Epping.”—*Mr. Doubleday*. “Cramond, near Edinburgh.”—*Rev. W. Little*. “Strand-on-the-green.”—*Rev. A. H. Matthews*. “Bottisham, not uncommon.”—*Rev. L. Jenyns*. “Allesley and Coleshill.”—*Rev. W. T. Bree*. “Durdar.”—*T. C. Heysham, Esq.* “Newcastle.”—*G. Wailes, Esq.*

Sp. 3. *cinereata*. *Alis cinereis, anticis fascia basi alterâque insolidâ medio fuscis; strigâque posticâ interruptâ albâ, posticis pallidis immaculatis.* (Exp. alar. 1 unc. 4—6 lin.)

Tr. *cinereata*. *Steph. Catal. part ii. p. 139. No. 6613.*

Wings plain pale cinereous; anterior with a narrow fuscous fascia at the base, and a broad one composed of two slender fasciolæ in the middle, on the anterior margin of which is a black line; towards the posterior margin is an obscure interrupted whitish or white striga, and on the margin itself a fine dusky line; posterior wings immaculate pale cinereous.

Much less than the last, totally destitute of the purple tinge, and of a far paler colour, the posterior wings being whitish ash and immaculate, and the few markings on the anterior being of a very dissimilar form.

My specimens were captured near Ripley, in July, 1827:—they differ slightly from each other, but their characters are similar.

GENUS CCXVII.—CAMPTOGRAMMA* *mihi*.

Palpi rather long, porrected obliquely upwards in the form of a beak, conic, acute, densely clothed with scales; triarticulate, the basal joint curved; the second longer, compressed, equally robust, slightly attenuated, terminal ovate-lanceolate, obtuse: *maxillæ* rather long. *Antennæ* slender, simple in both

* *Καμπτω*, flecto; *Γραμμα*, litera.

sexes, slightly pubescent within in the males: *head* short; *forehead* with a conical fascicle of scales: *eyes* globose, prominent: *thorax* slender, simple: *wings* placed in a triangle during repose; all with the hinder margin slightly waved, and marked with numerous dark flexuous lines on a flavescent ground colour: abdomen short, somewhat cylindrical obtuse, with a small tuft at the apex, rather stoutest in the females: *legs* simple. Larva with 10 legs, obscurely spotted or lineated, not tuberculate.

Camptogramma not only differs from the preceding genus by the dissimilarity in the structure of the palpi, but in other points, and may be readily known by the flavescent or luteous hues of its ample wings, which are all strigated transversely with darker lines intermixed with whitish, and have their hinder margins sinuated.

Sp. 1. *bilineata*. *Alis luteis, undulis obsoletis numerosis obscurioribus fasciâque duplicis medio anticarum fuscâ externè sinuatâ alboque marginatâ*. (Exp. alar. 1 unc. 1—4 lin.)

Ph. Ge. *bilineata*. *Linné*.—*Don*. viii. pl. 287. f. 3.—*N. G. bilineata*. *Steph. Catal. part ii. p. 140. No. 6615*.

Wings luteous, with numerous obsolete darker, or testaceous waved strigæ, the anterior with a broad unsolid fascia, having its margin suffused with fuscous and edged with white, and considerably sinuated exteriorly, a whitish striga towards the base, and near the hinder margin a pale waved one, more or less distinct, and sometimes clouded with fuscous within; cilia clouded with pale fuscous: posterior wings rather tawny, with one or more whitish striga intermixed with the darker ones.

Extremely variable; some examples being destitute of the fuscous margins to the central fascia: others wanting the strigæ on the posterior margin, and some having the hinder margin entirely fuscous: in some cases the extreme margins of all the wings have a deep black line: the cilia are sometimes totally immaculate.

Caterpillar greenish, sometimes with faint white streaks, or nearly immaculate: it feeds on the *Lychnis Dioica*.

Very common; occurring copiously in every hedge near London during the end of June and beginning of July: and I believe in other parts. "York."—*W. C. Hewitson, Esq.* "Northumberland."—*G. Wailes, Esq.* "Epping."—*Mr. Doubleday*. "Strand-on-the-green."—*Rev. A. H. Matthews*. "Hedges near Ely, plentifully."—*Rev. L. Jenyns*. "Abundant in hedges and woods in Cambridgeshire."—*T. C. Heysham, Esq.* "Dalmeny, Rachills, &c."—*Rev. W. Little*.

GENUS CCXVIII.—EUCOSMIA * *mihl*.

Palpi moderate, remote, not porrected in form of a beak; the base clothed with squamous hairs, the apex with short dense scales, and somewhat dolabriform, acute; triarticulate, the basal joint robust, curved, the second rather more slender and shorter, slightly bent, terminal minute ovate, acute: *maxillæ* rather long. *Antennæ* simple in both sexes, slightly pubescent within in the males: *head* small: *forehead* with a slight squamous crest: *eyes* glabrous: *thorax* slender, simple: *wings* placed in a triangular position during repose; anterior with the posterior margin obsoletely waved; posterior very distinctly indented; all thickly marked with dark flexuous lines on a pale ground; and the inner margin of the posterior, in the males, with a large fascicle of scales: *legs* simple; posterior *tibiæ* slightly incrassated, and furnished with two pair of very short spurs. Larva with 10 legs.

The males of this genus are rendered conspicuous by the singular fascicle of hair-like scales which adorns the inner margin of the posterior wings; and both sexes are admirably distinguished by the numerous waved transverse lines which decorate all the wings: the palpi are very unlike those of *Camptogramma*, but the genus seems evidently more allied to that genus than to *Boarmia*, near which it has been recently placed.

Sp. 1. *undulata*. *Alis griseo-cinereis, strigis numerosissimis perundulatis fuscis extus albis.* (Exp. alar. 1 unc. 3—5 lin.)

Ph. Ge. *undulata*. *Linné*.—*Don*. x. pl. 342. f. 3.—*N. G. undulata*. *Steph. Catal.* part ii. p. 140. No. 6616.

Griseous-ash; all the wings with numerous undulated fuscous strigæ alternating as it were with whitish ones, and with a very distinct and more undulated whitish one towards the hinder margin; the strigæ in the middle of the anterior wings are somewhat united in a chain-like form towards the inner margin, and near the costa is a conspicuous black dot: cilia pale, with fuscous clouds; body fuscous, spotted with black: the fascicle on the inner margin of the posterior wings of the male is tipped with fuscous.

Slightly variable, arising from the striga on the anterior wings being more or less remote or confluent in the middle of the wings.

Caterpillar is said to feed on the willow (*Salix caprea*):—the imago appears towards the end of June, frequenting woods.

Not common: found occasionally at Darent and Coombe

* *Eu*, bene; *κοσμος*, ornatum.

Woods. "Allesley."—*Rev. W. T. Bree*. "York, rarely."—*W. C. Hewitson, Esq.* "Epping."—*Mr. Doubleday*.

GENUS CCXIX.—CHARISSA, *Curtis*.

Palpi short, porrected obliquely upwards, not projecting in the form of a beak, slightly remote, densely clothed with short scales; triarticulate, basal joint long, curved at the base; second slightly attenuated, terminal minute ovate: *maxillæ* long. *Antennæ* long, stout in the males, and compressed, the inner edge produced and slightly pubescent; slender and simple in the females: *head* small: *forehead* slightly prominent: *thorax* slender: *wings* placed in the form of a triangle during repose; anterior slightly crenate, posterior irregularly indented; all with an ocellar spot or a round dot in the centre, and of obscure colours: *abdomen* rather long, obtuse, and slightly tufted in the males, shorter and acute in the females: *legs* moderate: posterior *tibiæ* slightly clavate in the males, and furnished with two pair of short spurs. Larva with 10 legs.

Charissa differs from the preceding genera by having the palpi much shorter, those of the male being compressed, and somewhat produced within; the wings are short, rather deeply crenated or indented on the hinder margin of the posterior ones, and in the typical species furnished with an ocellar mark in the centre: the posterior tibiæ are also somewhat thickened and dilated in the type, but scarcely so in the conterminous species.

Sp. 1. *obscuraria*. *Alis nigro pulverulentis subcrenatis, puncto medio ocellaris, strigis duabus dentatis atris.* (Exp. alar. 1 unc. 3—5 lin.)

Ge. *obscuraria*. *Wien. Verz.*—Ch. *obscuraria*. *Steph. Catal. part ii. p. 140. No. 6617.*

Dusky-black, with the wings somewhat crenate and very thickly pulverulent with black, with a distinct ocellar dot in the centre, and the anterior with two dentated strigæ in the middle of a very deep black, and on the hinder margin of all is a scarcely interrupted black line: cilia clouded with fuscous: the dentated hinder strigæ of the anterior wings is continued beyond the middle of the posterior ones.

Caterpillar above brownish-violet, with the three anterior segments brightest, the following with yellowish stripes, and each segment with two white dots: it feeds on the dewberry (*Rubus cæsius*), and the southernwood (*Artemisia campestris*):—the imago appears in July.

Very abundant in the New Forest, Hants, and also, I believe, in Devonshire. "Baron-wood."—*T. C. Heysham, Esq.*

Sp. 2. *dilucidaria*. *Alis cinereis atomis fuscis, strîis punctatis obscurioribus, maculâ ocellari in omnibus.* (Exp. alar. 1 unc. 4—5 lin.)

Ge. *dilucidaria*. *Wien. Verz.*—Ch. *dilucidaria*. *Steph. Catal. part ii. p. 140. No. 6618.*

Wings cinereous sprinkled with blackish-brown dots, the anterior with two obscure crenated strigæ composed of blackish dots, the outer line being continued on the posterior wings, a little behind the middle; the space between the strigæ on the anterior wings is rather dark, and has a distinct ocellar spot in the middle; as have the posterior wings within the strigæ: cilia griseous spotted with black.

Taken in Devonshire in June.

Sp. 3. *pullata*. *Alis cinereis strigâ denticulatâ ante alterâque communi pone medium, annulo interjecto saturatiore.* (Exp. alar. 1 unc. 3—4 lin.)

Ge. *pullata*. *Wien. Verz.*—Ch. *pullata*. *Steph. Catal. pt. ii. p. 140. No. 6619.*
Ph. Ge. 4-pustularia. *Don. xiii. pl. 463.*

Wings cinereous, thickly sprinkled with darker spots and black dots, the anterior with two denticulated black strigæ, one before, the other behind, the middle, somewhat approximating towards the inner margin, and between them, towards the costa, a black ring with a pale centre; towards the hinder margin is a slightly clouded undulation, and on the hinder margin itself an interrupted black line; posterior wings with a single denticulated striga behind the middle, between which and the base is a dark ocellar spot as in the anterior wings; the hinder margin has also an interrupted black line; cilia of all the wings cinereous, with darker clouds.

Abundant behind the Castle at Dover in August, and found also in Devonshire. “Tynemouth.”—*G. Wailes, Esq.*

Sp. 4. *serotinaria*. *Alis omnibus albidis atomis numerosis fuscis, strigâ dentatâ, annuloque medio nigris, ordineque punctorum nigrorum marginali.* (Exp. alar. 1 unc. 4 lin.)

Ge. *serotinaria*. *Hübner?*—Ch. *serotinaria*. *Steph. Catal. part ii. p. 140. No. 6620.*

Wings whitish, with a flavescent tinge and numerous fuscous dots, with a common dentate fuscous striga rather behind the middle, and a central black annulus; towards the hinder margin is a pale waved striga, clouded within with fuscous, and the hinder margin itself has a series of minute black dots; the anterior wings have also a triundulated fuscous striga towards the base; cilia of all the wings pale yellowish-ash, with some darker shades.

Found in Sussex, and it is supposed formerly near London.

† Sp. 5. *operaria*. *Alis cinereis ochraceo variegatis, anticis strigis duabus punc-*

toque interjecto fuscis, strigâque posticâ pallidâ, posticis strigis duabus pallidis interiore intus nigro adnatâ. (Exp. alar. 1 unc. 8? lin.)

Ge. operaria. *Hübner*.—Ch. operaria. *Curtis*, iii. pl. 105. *Steph. Catal. part ii.* p. 144. No. 6621.

“Dull gray, variegated and tinged with pale ochre, glossy. Antennæ dull ferruginous: thorax and abdomen gray, sprinkled with whitish scales, the latter darkest at the edges of the segments: wings rather narrow, anterior dark gray, irregularly variegated with white scales, an obscure transverse curved fascia (striga) towards the base, another beyond the middle, parallel to the posterior margin, sinuated; and a pale indented one near the same margin; seven minute black dots at the base of the cilia, and a large obscure one near the middle approaching the costa: posterior wings with a sinuated obscure fascia (striga) near the centre, pale at the external edge, and a paler one nearer, parallel with the margin, upon which there are a few black spots, and a larger very obscure one between the fascia and the base.”—*Curtis*, *l. c.*

This species seems to depart from the genus; but not having a specimen, I am compelled to remain silent upon its distinctions. All the examples hitherto captured of this species I believe have occurred in Scotland towards the end of July. “Flisk, N. B.”—*Rev. J. Fleming*.

GENUS CCXX.—PACHYCNEMIA * *mihî*.

Palpi rather long, approximating in form of a beak, subclavate, acute, densely squamous, the scales elongated on the basal joints; triarticulate, basal joint elongate, slightly curved at the base, attenuated to the apex; second rather shorter, also a little attenuated at the apex; terminal short, ovate: *maxillæ* very long. *Antennæ* short, the articulations slightly produced within in the males, and a little pubescent, simple in the females: *head* small; *forehead* prominent, somewhat globose: *eyes* large: *thorax* slender: *wings* entire; *anterior* elliptic, with very obsolete markings; *posterior* ample, oval: *abdomen* rather long, curved, slender, acute at the apex and very slightly tufted in both sexes: *legs* short; *posterior tibiæ* thickened and dilated.

From all the foregoing genera *Pachycnemia* differs by the elliptic form of the anterior wings, and from *Chesias* by the robustness of the posterior tibiæ, exclusively of other characters. One species only is known, which frequents poor and arid heaths.

* Παχυς, crassus; ὑμηνη, tibia.

Sp. 1. *Hippocastanaria*. *Alis anticis argenteo-cinereis, lineis duabus obsoletis nigricantibus cinereo adnatis, posticis albidis rubro micantibus.* (Exp. alar. 1 unc. 3—4 lin.)

Ge. *Hippocastanaria*. *Hübner*.—Pa. *Hippocastanaria*. *Steph. Catal. part ii. p. 141. No. 6622.*

Head and thorax dark cinereous; anterior wings the same, with a silvery hue, with two very obsolete dusky strigæ, one incurved towards the base, the other behind the middle and repanded; the former bordered anteriorly and the latter posteriorly with pale cinereous; in the centre of the disc is a rather conspicuous fuscous dot, and the nervures are mostly fuscous: on the hinder margin is a row of black dots; cilia silvery-ash: posterior wings whitish, with a reddish tinge, and an obsolete striga towards the hinder margin, which last has a row of faint dots: cilia pale immaculate.

The female is smaller, with the wings narrower and darker, the anterior with the space between the strigæ forming a conspicuous dark fascia, and the posterior have an irregular dark strigose wave in the middle.

Apparently very local: I possess two fine specimens from Rochford in Essex, and others from the New Forest, where the insect appears to be in plenty in July: it also occurs near Birch-wood, and the female in my collection I captured in April on Ockham-heath, near Ripley.

GENUS CCXXI.—CHESIAS, *Treitschke*.

Palpi long, projecting in form of a beak, approximating at the apex, acute, densely scaly; triarticulate, the basal joint short, slightly robust, second elongate, rather slender at the base, and somewhat thickened towards the apex, terminal longer than the first, ovate-lanceolate; *maxillæ* rather long. *Antennæ* simple in both sexes, the articulations in the males very slightly produced within and pubescent, a little compressed: *head* small; *forehead* globose, prominent: *eyes* large: *thorax* slender: *wings* entire, glossy; *anterior* ovate-lanceolate, not distinctly fasciated; *posterior* oval, ample: *abdomen* somewhat robust, stout, cylindric, obtuse, and slightly tufted at the apex: *legs* simple; *tibiæ* slender. Larva elongate, slender, naked, not tuberculate; pupa subterranean.

From *Pachynemina*, with which genus *Treitschke* unites the present, *Chesias* appears to differ by the great dissimilarity in the structure of the palpi (the basal joint not being so long as the apical one, whereas in the former genus the basal joint is longer than the second, and the apical one comparatively minute), combined with the glossiness and dissimilar form of the wings, and by having all the tibiæ slender.

- Sp. 1. *Spartiatia*. *Alis anticis griseo-cinereis fusco variegatis et nebulosis, strigâ pallidâ subtus costam, a basi usque per apicem.* (Exp. alar. 1 unc. 3—6 lin.)
 Ph. *Spartiatia*. *Fabricius*.—*Don. x. pl. 342. f. 2.*—Ch. *Spartiatia*. *Steph. Catal. part ii. p. 141. No. 6627.*

Anterior wings griseous-ash, variegated and clouded with fuscous, three conspicuous oval blotches of the latter colour being placed transversely across the wings—the first, which is largest, in the middle of the costa, the second in the middle of the disc, and the third somewhat towards the base of the inner margin; these spots are more or less marked with whitish or deeper clouds; nearly parallel with the costa is a conspicuous longitudinal pale streak, which reaches to the apex of the wing; and towards the hinder margin is a pale ashy-white streak, the space between which and the margin itself is dark fuscous, sometimes bordered with ashy on the hinder margin, which always has a slightly interrupted black streak: posterior wings fuscous, immaculate, with a darker marginal line; cilia of all fuscous at the base, pale at the apex.

Caterpillar green or yellow with a pale or white lateral line: it feeds on the broom (*Spartium scoparium*):—the imago appears towards the end of September, or in October.

Local: not uncommon in the larva state amongst the high broom which abounds so in the waste near Coombe-wood.—“Allesley.”—*Rev. W. T. Bree*. “Little Orton.”—*T. C. Heysham, Esq.*

- Sp. 2. *obliquaria*. *Alis cinereis, anticis posticè rufescentibus strigâ flexâ fasciæformi pone medium brunneo-fuscâ, alterâque posticè albâ.* (Exp. alar. 1 unc. 2—3 lin.)

Ge. *obliquaria*. *Wien. Verz.*—Ch. *obliquaria*. *Steph. Catal. part ii. p. 141. No. 6628.*—Ph. *Bombycata*. *Don. xi. pl. 386. f. 4.*

Griseous; anterior wings rufescent, especially behind the middle, with a faint rectangular fuscous striga near the base, and a very indistinct one towards the middle, behind which is a conspicuous fuscous-brown somewhat flexuous one: towards the hinder margin is a whitish striga, sometimes crenate, which terminates in an oblique line at the apex, and on the margin itself is a faintly interrupted black line, occasionally bordered within with whitish; cilia cinereous, with a darker central line: posterior wings pale fuscous, immaculate.

Less frequent than the last, but nevertheless far from abundant in the south: I have occasionally taken specimens on the palings surrounding the premises of Coombe-wood House. “Epping.”—*Mr. Doubleday*. “Gibside.”—*G. Wailes, Esq.*

GENUS CCXXII.—THERA * *mili*.

Palpi rather short, remote, approximating at the apex, acute, triarticulate, the basal joint curved, of equal length with the second, which is a little attenuated at the apex, both equally robust, terminal minute, subglobose: *maxillæ* moderate. *Antennæ* short, pubescent within in the males, sometimes slightly bipectinated nearly to the apex, which is simple; of the females simple, or with the articulations very slightly produced: *head* small; *forehead* flat: *eyes* small: *thorax* slender: *wings*, anterior ovate-triangular, with a transverse central fascia; *posterior* ample, oval: *abdomen* rather long and carinated down the back in the males, with a large tuft at the apex; shorter, rather stouter, and acute in the females.

This genus is also united to the former by Treitschke; but it evidently differs not only in the structure of its palpi (of which the basal joint is of equal length with the second, and the terminal one is minute, subglobose), but in the form, markings, and texture of its wings:—the species of the present genus feed in their earlier stages upon plants of the fir or juniper kind, and I believe all have two annual broods. The first species differs by having the antennæ of the males slightly pectinated, and of the females obscurely serrated.

A. With the antennæ slightly pectinated in the males.

Sp. 1. *simulata*. *Alis anticis rufo-cinereis, basi fasciâque mediâ angulatâ, fusco marginatâ, rufescentibus, posticis rufo-albidis.* (Exp. alar. 1 unc. 2 lin.)

Ge. *simulata*. Hübner.—N. G. *simulata*. Steph. Catal. pt. ii. p. 142. No. 6629.

Anterior wings reddish-ash, with a rufescent patch at the base, bordered by a curved, slightly angulated, fuscous striga; in the middle of the wing a waved, angulated, rufescent fascia, also bordered on each side with a fuscous striga, and having a fuscous dot on the disc towards the costa; the wing is darker behind the central fascia, and has an obscure whitish waved striga towards the hinder margin, clouded within with fuscous: posterior wings and abdomen pale reddish-white.

Slightly variable in colour, and a little so in the intensity and form of the markings.

Not common: my specimens were all taken in the neighbourhood of Birch-wood towards the end of June.—“Flisk, N. B.”—*Rev. J. Fleming*.

* Θησα, insula.

B. With the antennæ simple in both sexes.

Sp. 2. *variata*. *Alis anticis cinereo-fuscis, fasciâ basi alterâque mediâ angulata obscurioribus, lineâque obsoletâ dentatâ albidâ.* (Exp. alar. 10—14 lin.)

Ge. *variata*. *Wien. Verz.—Entom. Trans. i. pl. 7. f. 1.*—N. G. *variata*. *Steph. Catal. part ii. p. 142. No. 6630.*

Griseous; anterior wings with a fuscous fascia at the base, a second in the middle, produced into a strong sinuated lobe without, and considerably attenuated towards the inner margin, in some examples broken, towards the costa is a black dot; the hinder margin is considerably clouded with fuscous, and bears a more or less distinct whitish dentate striga; on the hinder margin are some fuscous dots, and the cilia are cinereous, spotted with fuscous: posterior wings brownish.

Extremely variable, both in tint, and in the breadth and intensity of the markings on the anterior wings, the basal and central strigæ being sometimes nearly black, at others reddish.

Caterpillar green, with a whitish spotted dorsal line, a white lateral one, bordered with yellowish beneath; it feeds on the various kinds of fir, especially the *Pinus picea* and *P. Abies*:—the imago appears in June, and a second time in September.

Very abundant in some years in fir-plantations: I have taken the insect in profusion at Birch-wood and Hertford; also occasionally near Hampstead, and at Ripley. “Epping.”—*Mr. H. Doubleday*. “Alderley, Cheshire.”—*Rev. E. Stanley*.

Sp. 3. *fulvata*. *Alis anticis griseo-cinereis, fasciâ media sinuatâ rufescente.* (Exp. alar. 1 unc. 3 lin.)

Ph. *fulvata*. *Fabricius?*—N. G. *fulvata?* *Steph. Catal. part ii. p. 142. No. 6631.*

Anterior wings griseous-ash, with an obscure fascia at the base, and a distinct angulated one in the middle reddish, the latter with a fuscous dot towards the costa, and considerably attenuated towards the inner margin of the wing; the hinder portion of the wing is slightly clouded with fuscous, and has a very obsolete whitish striga towards the margin: posterior wings plain fuscous.

This may probably be only a variety of the foregoing species, which it greatly resembles: from the first it differs by having the antennæ simple in both sexes.

Found occasionally in the midland counties of England, and also in the north. “Baron-wood, Orton.”—*T. C. Heysham, Esq.*

Sp. 4. *Juniperata*. PLATE 31, f. 2. *Alis cinerascens, anticis fasciis duabus fusco-griseis, lineâque apicis fuscâ.* (Exp. alar. 1 unc.)

Ph. Ge. *Juniperata*. *Linné.*—N. G. *Juniperata*. *Steph. Catal. part ii. p. 142. No. 6632.*

Wings cinereous; anterior with an abbreviated fuscous fascia at the base, somewhat biangulated without; a second, considerably indented within and lobate without, and very much sinuated from the lobe to the inner margin—which portion of the fascia is composed of a series of oval rings—with a black dot towards the costa: hinder margin slightly clouded with fuscous, with a faint pale striga, and a distinct oblique line at the apex: cilia pale: posterior wings paler, with an angulated darker line towards the hinder margin: all the wings have a few scattered fuscous atoms.

Caterpillar green, with a whitish and reddish line; it feeds on the juniper (*Juniperus communis*):—the imago appears in September.

I have seen but two specimens of this insect, both of which occurred amongst the juniper-bushes which abound in one part of Birch-wood.

GENUS CCXXIII.—OPORABIA * *mihî*.

Palpi minute, not visible from above, depending, triarticulate, the basal joint stout, reniform; the second very short, subquadrate; terminal minute, ovate: *maxillæ* short. *Antennæ* short, the articulations produced within in the males, and each side furnished with several fine hairs, which produce a slightly pectinated appearance; simple in the females: *head* small, short; *forehead* broad: *eyes* globose: *thorax* slender: *wings* ample, thin, anterior rounded, disposed in a triangle during repose; *anterior* ovate-triangular, more or less marked with undulated strigæ; *posterior* somewhat oval: *body* short, slender, and obtuse, with a slight tuft at the apex in the males; stouter and acute in the females: *legs* simple: both sexes with wings. Larva smooth, naked, lineated: pupa subterranean.

The delicately thin, rounded, and ample wings of this genus, united to the minuteness and structure of the palpi, the pilose and slender antennæ, abbreviated abdomen, and other characters, point out its claim for distinction.

Sp. 1. *dilutata*. *Alis albido-cinereis, anticis strigis variis undulatis duplicatis triplicatisve saturatioribus, posticis lineis fuscescentibus ad marginem posticum.* (Exp. alar. 1 unc. 2—7 lin.)

Ge. *dilutata*. *Wien. Verz.*—N. G. *dilutata*. *Steph. Catal. part ii. p. 142. No. 6633.*—Ph. *inscriptata*. *Don. xv. pl. 517.*

Wings whitish-ash, with various waved fuscescent strigæ on the anterior, mostly disposed in fasciæ of two or three lines each, and placed nearly equidistant

* *Οπωγα*, autumnus; *βίον*, vivo.

from each other; the first at the base, the second before and the third behind the middle, and a fourth towards the hinder margin, on which is an interrupted black line: posterior wings paler, with some waved lines towards the hinder margin.

Extremely variable; some examples are almost entirely of a plain cinereous, others of a deep fuscous; without strigæ: the latter are more or less confluent in different examples; and the nervures of the wings are generally marked with a broken fuscous line; in some instances forming a conspicuous X mark on the disc of the anterior: the posterior wings have sometimes a deep border, at other times they are immaculate.

Caterpillar dirty-green, with reddish spots and a yellowish lateral line: it feeds on the oak, elm, ash, &c.:—the imago appears in October.

Very abundant throughout the southern districts of England. "Epping."—*Mr. Doubleday*. "Strand-on-the-green."—*Rev. A. H. Mattherws*. "Newcastle, Meldon-park, Keswick, &c. common."—*G. Wailes, Esq.* "Baron-wood."—*T. C. Heysham, Esq.*

GENUS CCXXIV.—CHEIMATOBIA* *mili*.

Palpi very minute, depending, remote, obtuse, slightly squamose; triarticulate; the basal joint curved; second as long, cylindric; terminal minute, ovate: *maxillæ* very short. *Antennæ* stout, slender, the articulations produced within and strongly pubescent in the males; simple in the females: *head* small, rounded: *eyes* globose, small: *thorax* slender: *wings* ample, thin, entire, nearly wanting in the females; *anterior* with transverse lines or fasciæ, rounded on the hinder margin: *posterior* ovate-triangular, as large as the anterior: *abdomen* very short and slender in the males, with a small anal tuft, stouter and obtuse in the females: *legs* simple. Larva slender, naked, with pale lateral lines, not tuberculated: pupa subterraneous.

The insects of this genus are remarkable for the plainness of their hues, which partake of the character of the season in which they appear—the winter, whence their name. In the minuteness of their palpi they resemble the preceding genus, but from that they differ by the dissimilarity of the antennæ and palpi, the texture of the wings, the females being nearly apterous, &c.

Sp. 1. *brumata*. *Alis anticis cinereo-fuscis, strigis obsoletis saturatoribus, posticis albidis-immaculatis*. (Exp. alar. ♂ 1 unc. 1—2 lin.)

* Χεῖμα, hycms; βίωω, vivo.

Ph. Ge. brumata. *Linné*.—Ch. vulgaris. *Steph. Catal. part ii. p. 142. No. 6634.*

Anterior wings ashy-brown, with various obsolete darker waved strigæ, varying considerably in number in different specimens, the central ones frequently confluent, and forming an indistinct transverse fascia; the hinder margin slightly darker, with some obscure fuscous dots at the base of the cilia, which are fuscous: posterior wings paler, with very obscure fuscous strigæ. Female fuscous, with very short somewhat linear wings.

In some examples the strigæ are altogether wanting; and the nervures are frequently spotted with deep fuscous.

Caterpillar pale-green, with faint lateral lines: it feeds on various plants:—the imago appears about the end of November, and continues about during December.

Also extremely copious in the south of England. I once met with a ditch in Epping-forest, of which the water was covered by myriads of specimens which had been drowned. “Epping.”—*Mr. Doubleday*. “Strand-on-the-green.”—*Rev. A. H. Matthews*. “Newcastle, &c. common.”—*G. Wailes, Esq.* “Little Orton.”—*T. C. Heysham, Esq.*

Sp. 2. rupicapraria. *Alis anticis fusco-griseis, fasciâ latâ medio saturatiore externe albido adnatâ, puncto medio nigro. Femina alis cinereis fasciâ media rufescente fusco marginatâ.* (Exp. alar. ♂ 1 unc. 1—3 lin.)

Ge. rupicapraria. *Wien. Verz.*—Ch. rupicapraria. *Steph. Catal. part ii. p. 143. No. 6635. Albin. pl. xlix. f. 83. f. e—g?*

Griseous-brown; anterior wings the same, with evanescent paler transverse streaks, a broad dark central fascia, terminated on both edges with a darker line and bordered with whitish, the margins slightly crenate, and the disc with a large black, or fuscous, spot; on the hinder margin are six or eight black dots: posterior wings whitish, with a central fuscous dot, and an evanescent posterior striga; the hinder margin with a row of fuscous spots. Female with short, robust, rudimentary wings, whitish-ash, with a distinct reddish transverse fascia, towards the apex of the anterior wings, bordered with fuscous or black; posterior wings with a dark striga.

Caterpillar dull-green, with fine white lateral lines and edges to the segments: it feeds on the wild plum:—the imago appears towards the middle or end of January.

Much less abundant than the last, but not rare. “Epping.”—*Mr. Doubleday*. “Strand-on-the-green.”—*Rev. A. H. Matthews*. “Little Orton.”—*T. C. Heysham, Esq.*

GENUS CCXXV.—LOBOPHORA* *mili*.

Palpi short, remote, densely clothed with scales, slightly acute; triarticulate; basal joint short, subquadrate; second long, attenuated; terminal short, ovate: *maxillæ* moderate. *Antennæ* short, simple in both sexes, slightly pubescent within in the males: *head* small: *eyes* globose: *thorax* slender: *wings* entire, extended horizontally during repose; *anterior* elongate-lanceolate, posterior in the males small, with a lobate appendage at the base of the inner margin; ample and with a mere rudimentary lobe in the females: *abdomen* slender, elongated, carinated down the back, obtuse and tufted at the apex in the males, acute in the females: *legs* moderate; posterior *tibiæ* slender, sometimes with one pair of spurs only. Larva elongate, slender, naked; head round: pupa subterranean.

In the structure of the palpi this genus considerably resembles *Thera*, but from that genus the present may be distinguished by having those parts very short and scarcely visible from above; also by the slenderness of the antennæ, by the lobated appendage, so very conspicuous in the males of the typical species, at the base of the inner margin of the posterior wings.

A. Posterior tibiæ with one pair of spurs: (*males* with a small lobe at inner base of posterior wings.)

Sp. 1. *polycommata*. *Alis anticis ex griseo-fuscis, fasciâ media saturatiore lineâque dentatâ albâ.*

Ge. *polycommata*. *Wien. Verz.*—Lo. *polycommata*. *Curtis*, ii. pl. 81.—*Steph. Catal. part ii. p. 143. No. 6636.*

Pale griseous-brown; anterior wings with an angulated transverse fuscous striga at the base, and a broad angulated fascia in the middle, having a large oval pale-griseous patch towards the costa, and a minute one towards the inner margin: the posterior margin with several irregularly waved fuscous strigæ and a pale wave; the hinder margin itself fuscous, with a row of black dots placed in pairs; cilia fuscous: posterior wings pale ochraceous, with two indented fuscous strigæ towards the hinder margin, and a row of geminated black dots on the extreme edge.

Caterpillar green, with dull spots and a yellowish lateral line: it feeds on the honeysuckle (*Lonicera Xylosteum*):—the imago appears in the spring.

Taken early in April in a lane between Eltham and Birch-wood.
 "Strand-on-the-green, March, 1831."—*Rev. A. H. Matthews.*

* Λοβος, lobus; φερω, fero.

Sp. 2. *dentistrigata*. *Alis albidis aut cinereis strigis obsoletissimis fuscescentibus, exteriore intus dentatâ.* (Exp. alar. 1 unc. 3—4 lin.)

Ph. *dentistrigata*. Haworth.—Lo. *dentistrigata*. Steph. Catal. part ii. p. 143. No. 6638.

Anterior wings whitish or cinereous; in fine examples with a very faint greenish tinge, and about five obsolete waved brownish strigæ placed in pairs and most distinct towards the costa, the outer one dentate; on the hinder margin is a row of minute geminated fuscous or black dots; cilia whitish with ashy clouds: posterior wings paler, with a pale-fuscous dot in the middle, and two or three faint undulated fuscous strigæ towards the hinder margin, on which last is an interrupted fuscous streak; cilia white.

Variable in colour, and in the strength and intensity of the transverse strigæ.

Caterpillar brown, with the back dull-green, and a yellowish lateral line; it feeds on the honeysuckle (*Lonicera Xylosteum*):—the imago appears in June.

Not common: I have taken a few examples at Birch-wood, and others have been found at Darent. “Corby-woods, Allesley.”—*Rev. W. T. Bree*.

Sp. 3. *costæstrigata*. *Alis cinerascentibus, strigis subquinque geminatis costalibus fuscis.* (Exp. alar. 1 unc. 4 lin.)

Ph. *costæstrigata*. Haworth.—Lo. *costæstrigata*. Steph. Catal. part ii. p. 143. No. 6637.

Wings whitish-ash, the anterior with about five abbreviated geminated æquidistant costal strigæ, from which arise a similar number of very obscure scarcely visible strigæ, which terminate on the inner margin: posterior wings whitish, with an obsolete marginal striga.

This may be only the female of the preceding species.

Taken near London in July.

Sp. 4. *rupestrata*. *Alis albis, anticis strigis quinque undatis fuscis.* (Exp. alar. 1 unc. 4 lin.)

Ge. *rupestrata*. Wien. Verz.—Hübner, pl. 37. f. 192.

Wings white; the anterior with five waved fuscous strigæ, the first at the base angulated, and attenuated towards the inner margin; the second and third straight, placed before the middle; the fourth irregularly lobate behind the middle; the fifth towards the hinder margin and sinuated within: the hinder margin is slightly clouded with cinereous, and has a row of geminated black dots: posterior wings with two deep-fuscous waved lines near the hinder margin, and a streak of the same on the extreme edge: cilia white, on the anterior wings with brown spots.

The only example I have seen of this insect I possess; it was taken in Devonshire in June.

Sp. 5. *viretata*. *Alis anticis virescentibus nigro nebulosis, fasciis ex punctis nebulisque nigris.* (Exp. alar. 1 unc. 1 lin.)

Ge. *viretata*. *Hübner*.—Lo. *viretata*. *Steph. Catal. part ii. p. 143. No. 6639.*
—Ph. *trinitata*. *Don. xiv. pl. 499. f. 1.*

Anterior wings greenish, flavescent in old specimens, varied with somewhat equidistant black and greenish strigæ, composed, as it were, of black dots and clouds, with a slight admixture of whitish; on the hinder margin is a row of geminated black dots; cilia greenish-ash, clouded with fuscous: posterior wings immaculate cinereous.

Caterpillar greenish-yellow, with reddish-brown dorsal spots: it feeds on the privet (*Ligustrum vulgare*):—the imago appears in June.

Not common: I have taken three or four examples at Birch-wood; it has also been found in Norfolk. “Epping, rare.”—*Mr. Doubleday*.

B. Posterior tibiæ with two pair of spurs: (*males* with a large lobe at inner base of posterior wings.)

Sp. 6. *hexapterata*. *Alis anticis fusco cinereoque variis, fasciis confertis saturatioribus interruptis.* (Exp. alar. 1 unc. 1—3 lin.)

Ph. *hexapterata*. *Fabricius*.—*Don. vi. pl. 192.*—Lo. *hexapterata*. *Steph. Catal. part ii. p. 143. No. 6640.*

Extremely variable: anterior wings varied with fuscous and cinereous, and more or less thickly fasciated with interrupted darker strigæ and bands, especially towards the base, in some instances nearly black; in others the central portion of the wing is entirely without strigæ, and is of a pale hue; on the hinder margin is a delicate black line: posterior wings white, with the hinder margin more or less obscurely strigated with fuscous: the base in the males with a large ciliated lobe or appendage resembling a wing; but wanting in the female.

In fine specimens there is frequently a rich flavescent tinge on the wings.

Caterpillar found on the beech in the autumn:—the imago appears in June.

At times abundant in certain places; about twelve or fourteen years since, it was in the utmost profusion at Birch-wood. “Epping.” *Mr. Doubleday*. “Strand-on-the-green.”—*Rev. A. H. Matthews*. “Dalmeny, near Edinburgh.”—*Rev. W. Little*.

Sp. 7. *sexalisata*. *Alis anticis griseo-cinereis fasciis duabus strigæque posticæ albidis, posticis fusciscente-albidis.* (Exp. alar. 9—11 lin.)

Ge. *sexalisata*. *Hübner*.—Lo. *sexalisata*. *Steph. Catal. part ii. p. 143. No. 6641.*

Anterior wings with the base fuscous, edged with a fuscous line, then a narrow, indistinct, waved, whitish fascia, followed by a broad fuscous one, in the middle of which, towards the costa, is a black dot, and behind this a

second more distinct white one, somewhat angulated and sinuated on its outer edge, the space from these fuscous, and having a sinuated white striga parallel with the hinder margin, on which is an interrupted black line, edged without with whitish: posterior wings dusky-white, with a central dot and a more or less distinct whitish fascia behind the middle; and the male with a fuscous lobe at the base.

Slightly variable as to the depth of colour and the intensity of markings.

Caterpillar whitish-green, with white dorsal stripes: it feeds on the willow (*Salix caprea*):—the imago appears in June and August.

Not common: it has been taken at Coombe-wood, up Robin-Hood-lane, and in the New Forest.

GENUS CCXXVI.—EUPITHECIA, *Curtis*.

Palpi rather long, projecting obliquely beyond the forehead in form of a beak, densely covered with scales, those at the base waved and elongated; triarticulate, the basal joint long, slightly robust, and a little curved, the second shorter, attenuated to the apex, terminal minute, subglobose: *maxillæ* moderate. *Antennæ* simple in both sexes, pubescent within in the males: *head* small; *forehead* prominent: *eyes* globose: *thorax* slender: *wings* entire, extended horizontally during repose, the hinder margins rounded; *anterior* elongate-lanceolate; *posterior* small, oblong-ovate: *abdomen* short, slender, obtuse in the males, stouter and acute in the females. Larva elongate, slender, naked, with pale lateral lines.

The insects of the present genus may be readily known by the smallness and brevity of the posterior wings, compared to the bulk of the anterior ones, as well as from the circumstance of their reposing with them perfectly horizontal with their ciliated edges in close contact with the substance on which they rest;—the anterior wings are very long, and have their hinder margin rounded:—the structure of the palpi may also be mentioned as a distinguishing character.

Sp. 1. *Linariata*. *Alis anticis albido-rufis, fasciâ subsolidâ medio fuscâ, limbo fusco nebuloso strigâ obsoletâ undulatâ albâ.* (Exp. alar. 9—10 lin.)

Ph. *Linariata*. *Wien. Verz.*—Eu. *Linariata*. *Curtis*, ii. pl. 64.—*Steph. Catal. part ii. p. 144. No. 6642.*

Anterior wings reddish-white, with a fuscous patch at the base, then a somewhat distinct rufous fascia, followed in the middle by a broad, nearly solid, incurved, ashy-brown one, in which is an elongate black spot; behind this is a second rufescent fascia, the margin of the wing being cinereous, with a faint, waved, white striga, and three distinct fuscous clouds; on the hinder margin

is an interrupted black line: posterior wings cinereous, with obsolete pale and darker strigæ, especially towards the inner margin.

Caterpillar green, with darker spots on the back, and a dull lateral line: it feeds on the toad-flax (*Antirrhinum Linaria*):—the imago appears in August.

Not common: taken occasionally in the vicinity of Darent and Birch Woods, and near Dover.

Sp. 2. *pulchellata*. *Alis anticis cinereo-albidis rufo fuscoque nebulosis et strigosis, fasciâ insolidâ medio fuscâ.* (Exp. alar. 9—10½ lin.)

Eu. *pulchellata*. *Steph. Catal. part ii. p. 144. No. 6643.*

Anterior wings ashy-white clouded and strigated with fuscous and rufous, with an unsolid central fuscous fascia, in which is a black dot, the posterior margin slightly clouded with fuscous, and having a very obscure pale waved striga; cilia clouded with fuscous: posterior wings whitish, rather thickly marked with transverse fuscous strigæ, especially towards the inner edge: cilia cinereous, with a few small fuscous spots at the base.

Slightly variable; and differs from the last by having the wings somewhat longer, much more clouded, and the transverse fasciæ being broken into strigæ; the posterior wings are paler.

Also uncommon: found near Coombe and Birch Woods in July.

Sp. 3. *rectangulata*. *Alis viridibus aut fuscescentibus strigis, nebulis maculisque tribus posticis rhombeis fuscis.* (Exp. alar. 8—10 lin.)

Ph. Ge. *rectangulata*. *Linné.*—Eu. *rectangulata*. *Steph. Catal. part ii. p. 144. No. 6644.*

Extremely variable: wings in general green, with various undulated fuscous strigæ, and a whitish one towards the hinder margin, which is usually of a dark hue, and bears about three subconfluent rhomboid darker clouds; the costa is also more or less spotted with fuscous: posterior wings almost similar, excepting in wanting the clouds on the hinder margin.

In some examples the strigæ in the middle of the anterior wings are condensed into a distinct dark fascia, having the usual central black spot: in others they are almost obliterated; and frequently the wings are faintly greenish, being totally suffused with fuscous or black, with the ordinary markings barely visible.

Very abundant in gardens throughout the metropolitan district, towards the middle and end of June. “Epping.”—*Mr. H. Doubleday*. “Meldon-park.”—*G. Wailes, Esq.* “Strand-on-the-green.”—*Rev. A. H. Matthews*. “Raehills, rare.”—*Rev. W. Little*.

Sp. 4. *subærata*? *Alis anticis viridibus strigis tribus subangulatis atris, limbo subnebuloso.* (Exp. alar. 8—9 lin.)

Ge. *subærata*. *Hübner*?—Eu. *subærata*. *Steph. Catal. part ii. p. 144. No. 6645.*

Anterior wings green, with an indistinct angulated black striga near the base, a bent one towards the middle, and a distinctly biangulated one, sinuated and obscure towards the inner margin, behind the middle; the posterior margin is slightly fuscous, and has a very obscure pale waved striga, with a few indistinct fuscous clouds towards the apex; the margin itself has a continuous black line, and the cilia are spotted with fuscous: posterior wings green, with a strongly angulated dark striga placed rather behind the middle. Very different in form to the foregoing, and the markings dissimilarly placed.

The only examples I have seen of this very distinct species were captured in Devonshire, mostly by Messrs. Chant and Bentley, in June.

Sp. 5. *nigrosericeata*. *Alis sublatiis sericeo-nigris nitidis, strigâ anticarum undulatâ albâ juxta marginem posticum.* (Exp. alar. 9—10 lin.)

Ph. *nigrosericeata*. Haworth.—Eu. *nigrosericeata*. Steph. Catal. part ii. p. 144. No. 6646.

Anterior wings rather broad, of a rich shining silken black, with obsolete darker strigæ, and a distinct whitish one towards the hinder margin; posterior wings somewhat paler, also with a faint whitish striga: cilia of all fuscous.

This is said to be the *Ge. inturbata* of Hübner, but I have not the means at present of ascertaining the fact: that insect is, however, given as a native of Austria.

Rare; found near London, I believe in June.

† Sp. 6. *sericeata*. *Alis omnibus pallide fuscescentibus sericeis, strigâ communi undulatâ juxta marginem posticum, ciliisque albicantibus.*

Ph. *sericeata*. Haworth.—Eu. *sericeata*. Steph. Catal. part ii. p. 144. No. 6647.

All the wings pale silken brown, with a common waved striga near the hinder margin, and the cilia whitish.

Of this insect I have never seen a specimen: the above concise definition (as also that of other species of this difficult genus,) is from *Lepidoptera Britannica*, but no locality is there given.

Sp. 7. *V ata*. *Alis viridibus, anticis V nigro prostrato notatis pone medium.* (Exp. alar. 8—10 lin.)

Ph. *V ata*. Haworth.—Eu. *V ata*. Steph. Catal. part ii. p. 144. No. 6648.

Wings green; anterior with indistinct transverse pale strigæ, and three more evident black ones, the first near the base, the second before, and the third behind, the middle; the latter one strongly angled near the costa, and forming a distinct V, the striga being nearly obliterated towards the inner margin of the wing; on the hinder margin is an interrupted black line; cilia green,

interrupted with fuscous: posterior wings paler, less virescent, but more distinctly strigated.

In general rare; but in July, 1827, I found the insect in great abundance in a bushy lane near Ripley, the only time that I ever captured the species: it does occur also at Darent and other places. "Epping."—*Mr. Doubleday*.

Sp. 8. *Strobilata*. *Alis albido-griseis, in medio strigis duabus communibus pectinatis fuscis, lineâque externâ dentatâ albidâ.* (Exp. alar. 8—9 lin.)

Ge. *Strobilata*. *Bork.*—Eu. *Strobilata*. *Steph. Catal. part ii. p. 144. No. 6649.*

Wings griseous-white, with waved fuscous strigæ and fasciæ, two of which, common to all the wings, are composed of minute, parallel, acute lineolæ, and appear from thence, as it were, pectinated within; beyond these, on the hinder margin, is an indistinct whitish dentate line, and on the margin itself a black one, interrupted on the nervures with white; and two fuscous clouds, one near the apex, the other towards the middle of the hinder margin of the posterior wings: cilia of all slightly clouded with fuscous.

Very abundant amongst the fir plantations in the neighbourhood of Ripley; it also is found, though sparingly, near London, in June.

Sp. 9. *rufifasciata*. *Alis griseis nebulosis, anticis fuscis duabus rufescentibus, pallido marginatis.* (Exp. alar. 8 lin.)

Ph. *rufifasciata*. *Haworth.*—Eu. *rufifasciata*. *Steph. Catal. part ii. p. 144. No. 6650.*

Anterior wings griseous, clouded with black, and transversely strigated with fuscous, with two narrow rufous fasciæ with pale edges, the first unangulated before, the second a little waved behind the middle; hinder margin with three fuscous clouds and an interrupted black line: cilia clouded with fuscous.

Not common; found near London, in April, and in Devonshire.

Sp. 10. *lævigata*. *Alis cinereis albo fuscoque nebulosis strigatisque.* (Exp. alar. 9—10 lin.)

Ph. *lævigata*. *Haworth.*—Eu. *lævigata*. *Steph. Catal. part ii. p. 144. No. 6651.*

Wings griseous-brown, with whitish clouds and various black and fuscous lineolæ, frequently acute, and one or more angulated black strigæ before the ordinary dark central spot; behind this a pectinated interrupted striga, and an undulated white paler one.

Caterpillar slender, glabrous, green, with a darker dorsal line interrupted with red in the young state, and two somewhat interrupted whitish lateral ones; the head and last segment of the abdomen reddish: it feeds on the common juniper (*Juniperus communis*):—the imago appears in July or August.

Found in the woods of Kent, but not very abundant.

Sp. 11. *exiguata*. *Alis griseo-albicantibus, fusco nebulosis, maculis tribus trapeziformis fuscis.* (Exp. alar. 9—10 lin.)

Ge. *exiguata*. *Hübner*.—Eu. *exiguata*. *Steph. Catal. pt. ii. p. 144. No. 6652*.—Eu. *trimaculata*. *Steph. Catal. l. c. No. 6653*.

Anterior wings whitish-griseous, with very obsolete strigæ, a conspicuous black dot in the middle, behind which is a straight pectinated striga composed of transverse lineolæ, and between this and the hinder margin a fascia composed of three trapeziform fuscous spots placed transversely: cilia fuscous, with darker spots: posterior wings fuscous, with the anal angle ashy, a fuscous central spot, and an interrupted row of spots on the hinder margin: cilia cinereous.

Entirely of a pale luteous-ochre, with the ordinary markings somewhat darker.—Eu. *ochreata*. *Steph. Catal. part ii. p. 144. No. 6654*.

Caterpillar dull-green, with a reddish dorsal and pale lateral line; it feeds on the common barberry (*Berberis vulgaris*):—the imago appears towards the end of June.

Not uncommon in woods in the neighbourhood of London. “Newcastle.”—*G. Wailes, Esq.* “Flisk, N. B.”—*Rev. J. Fleming*.

Sp. 12. *abbreviata*. *Alis anticis albicantibus, cinereo nebulosis, strigis variis fuscescentibus lineolisque quatuor atris, posticis cinereis margine postico fusco substrigato.* (Exp. alar. 9 lin.)

Eu. *abbreviata*. *Steph. Catal. part ii. p. 144. No. 6655*.

Anterior wings whitish, clouded with cinereous, with various fuscous strigæ and four black lineolæ, one on the disc, a second arising at the base, and the other two between the discoidal spot and the inner margin, placed nearly parallel with each other; the striga behind the middle is very flexuous, and is considerably produced within near the costa; near the hinder margin is a slightly waved pale striga, and on the margin itself an interrupted black line; cilia spotted with fuscous: posterior wings whitish-ash, obsoletely strigated with fuscous.

Not common; taken at Darent in June. “York.”—*W. C. Hewitson, Esq.*

Sp. 13. *singulariata*. *Alis griseo-cinerascentibus subnebulosis, obsoletè undatis, singulis puncto conspicuo ordinario nigro.* (Exp. alar. 11 lin.)

Ph. Ge. *singulariata*. *Villers*.—Eu. *singulariata*. *Steph. Catal. part ii. p. 145. No. 6656*.

Wings considerably elongated; anterior griseous-ash, slightly clouded and obsoletely waved, with a conspicuous central black dot: the hinder margin with an interrupted black line; posterior wings ashy, with a central dot and the

margin fuscous, and having an evanescent white waved striga; cilia of all slightly clouded with fuscous.

Rare: found near Darent-wood in June.

Sp. 14. *nebulata*. *Alis omnibus griseis nigro parum nebulosis, anticis puncto ordinario evanescente nigro.* (Exp. alar. 10 lin.)

Ph. *nebulata*. *Haworth.*—Eu. *nebulata*. *Steph. Catal. part ii. p. 145. No. 6657.*

All the wings griseous, a little clouded with black, the colours disposed in strigæ: the disc with a black dot: the posterior margin somewhat less clouded, with an indistinct pale waved striga, and a delicate, slightly interrupted black line; cilia clouded with fuscous; posterior wings rather cinereous, with two evanescent strigæ composed of minute black streaks.

Not uncommon in woods throughout the metropolitan district in June. “Meldon-park.”—*G. Wailes, Esq.*

Sp. 15. *albipunctata*. *Alis fuscis albo obsolete subnebulosis, anticis puncto ordinario nigro.* (Exp. alar. 10 lin.—1 unc.)

Ph. *albipunctata*. *Haworth.*—Eu. *albipunctata*. *Steph. Catal. part ii. p. 145. No. 6658.*

Anterior wings fuscous or brownish, with various pale clouds and dusky strigæ, with a central black dot; the hinder margin with an undulated striga composed of white spots, and a larger white spot on the costa before the striga; cilia fuscous: posterior wings similar, but paler.

Less abundant than the last; found in woods and in bushy places in June.

Sp. 16. *subumbrata*. *Alis anticis griseo-fuscis, strigis acutis interruptis fasciâ-que saturatioribus, puncto nigro.* (Exp. alar. 7—8 lin.)

Ge. *subumbrata*. *Wien. Verz.*—Eu. *subumbrata*. *Steph. Catal. part ii. p. 145. No. 6659.*

Anterior wings griseous-brown, with various acute interrupted strigæ, composed of minute black dots, and generally a narrow fascia in the middle, abruptly unangulated towards the costa, and composed of fuscous strigæ; on the central fascia is a minute black dot; cilia fuscous, with darker clouds: posterior wings paler, with rather obsolete abbreviated fuscous strigæ towards the inner margin; cilia cinerous, with darker clouds.

Not common: found in June or July in woody places. “Strand-on-the-green.”—*Rev. A. H. Matthews.*

Sp. 17. *subfasciata*. *Alis anticis angustioribus fuscis, nigro longitudinaliter*

sublineatis, fasciâ indistinctâ medio, strigâque dentatâ posticâ pallidis. (Exp. alar. $10\frac{1}{2}$ lin.)

Eu. subfasciata. *Steph. Catal. part ii. p. 145. No. 6660.*

Anterior wings rather long and slender, fuscous, clouded; the nervures mostly with interrupted black lines; across the centre is an indistinct pale fascia, with a fuscous striga running throughout its length from the costa to the inner margin; on the hinder margin is a dentated and waved pale striga, and on the margin itself an interrupted black line: cilia fuscous, with indistinct darker clouds: posterior wings rather paler towards the costa, and nearly of an uniform hue, with very obscure strigose lines towards the inner margin.

I have seen one specimen only of this species, which was captured at Darenth-wood in June.

Sp. 18. *vulgata.* *Alis griseo-fuscis ferè immaculatis, strigâ obsoletâ posticâ undulatâ albâ.* (Exp. alar. 8—10 lin.)

Ge. *vulgata.* *Haworth.*—Eu. *minutata.* *Steph. Catal. part ii. p. 145. No. 6661.*

Anterior wings griseous-brown, nearly immaculate, with a minute discoidal blackish dot, and an obsolete waved whitish striga towards the posterior margin, edged with fuscous within; on the disc of the wing are sometimes a few obscure dusky strigæ; on the extreme edge is a dusky line; cilia pale fuscous, with a darker line towards the base, and some obscure dusky clouds: posterior wings nearly similar.

Extremely abundant in gardens throughout the metropolitan district during the month of June. “St. Herbert’s Island, Derwentwater.”—*G. Wailes, Esq.* “Flisk, N. B.”—*Rev. J. Fleming.* “Alderley, Cheshire.”—*Rev. E. Stanley.* “Spranston.”—*T. C. Heysham, Esq.*

Sp. 19. *subfuscata.* *Alis omnibus cinereo-fuscescentibus, limbo postice punctoque ordinario medio saturatioribus.* (Exp. alar. 9—10 lin.)

Ph. *subfuscata.* *Haworth.*—Eu. *subfuscata.* *Steph. Catal. part ii. p. 145. No. 6662.*

All the wings of an ashy-brown, with the hinder margin somewhat darker, and having therein an obsolete waved pale striga, which is nearly obliterated; on the disc is a black dot.

Less abundant than the last, but nevertheless not uncommon in gardens within the metropolitan district in June.

Sp. 20. *innotata.* *Alis fusco-griseis, anticis fasciis duabus quadrilineatis nigris undatis, puncto nigro.* (Exp. alar. 10 lin.)

Ph. *innotata.* *Borkhausen.*—Eu. *innotata.* *Steph. Catal. part ii. p. 145. No. 6663.*

Wings gray-brown; the anterior with two fasciæ composed of four waved black strigæ, and towards the apex a deeper-coloured and more distinct striga, behind which is a dentate whitish one, which is sometimes nearly obliterated; on the disc is a minute black dot: posterior wings rather paler.

Apparently rare; I possess two examples captured in a garden near Darenth-wood in June.

Sp. 21. Absinthiata. *Alis omnibus griseo-fuscis, anticis punctis costalibus, alteroque conspicuo ordinario atris, strigâque posticâ interruptâ undulatâ albâ.*
(Exp. alar. 10 lin.)

Ph. Ge. Absinthiata. Linné.—Eu. Absinthiata. Steph. Catal. part ii. p. 145. No. 6664.

Wings griseous-brown; the anterior with some faint costal spots, and a large one on the disc, black; towards the posterior margin is an interrupted white striga, terminating at the anal angle in a conspicuous geminated white spot; on the hinder margin is a faint black line: posterior wings with the anal angle cinereous, with a minute white dot.

Very abundant in gardens in June within the metropolitan district, and I believe not uncommon elsewhere. "Epping."—Mr. H. Doubleday. "Meldon-park."—G. Wailes, Esq. "Raehills."—Rev. W. Little.

Sp. 22. notata. *Alis omnibus griseo-fuscis, anticis puncto medio rotundato, atro.*
(Exp. alar. 9 lin.)

Eu. notata. Steph. Catal. part ii. p. 145. No. 6665.

Anterior wings plain griseous-brown, without the vestige of strigæ, with a small central round black dot; posterior wings rather paler, with some indistinct transverse darker strigæ.

Found near London in June: the exact locality I forget.

Sp. 23. elongata. *Alis omnibus elongatis, fuscis anticis punctis costalibus nigris, alteroque margine medio ordinario atro.*

Ph. elongata. Haworth.—Eu. elongata. Steph. Catal. part ii. p. 145. No. 6666.

Wings plain fuscous; anterior considerably elongated, with some indistinct black costal spots, and a conspicuous elongated one in the middle, placed towards the costa; near the hinder margin is a very indistinct palish striga, and at the base of the cilia a faint interrupted black line: posterior wings paler, with a small central black dot.

Taken in gardens towards the end of June. "Black Hall Wood." T. C. Heysham, Esq.

Sp. 24. *simplicata*. *Alis griseis, strigis variis obsoletis pallidioribus, fimbriâque obsoletâ communi saturatiore.* (Exp. alar. 9—10 lin.)

Ph. *simplicata*. Haworth.—Eu. *simplicata*. Steph. Catal. part ii. p. 145. No. 6667.

Anterior wings rounded, griseous-ash, with several obsolete paler strigæ; one of which a little behind the middle is whitish, dentate within, and somewhat fasciæform; there is also a second conspicuous one towards the hinder margin, which is considerably undulated, the margin of the wing itself being rather dark, with an interrupted black line on its extreme edge; in the centre of the disc is a minute fuscous dot: posterior wings paler, with obsolete strigæ and a whitish one composed of angular marks towards the hinder margin, the latter with an interrupted black line.

Found in bushy lanes and woods in the beginning of July: very abundant near Darenth-wood. "Strand-on-the-green."—Rev. A. H. Matthews.

Sp. 25. *pusillata*. *Alis omnibus cinerascentibus, strigis, fimbriâque communi obsoletis, saturatioribus punctoque ordinario atro.* (Exp. alar. 7—8 lin.)

Ge. *pusillata*. Wien. Verz.?—Eu. *pusillata*. Steph. Catal. part ii. p. 145. No. 6668.

All the wings cinerascens, with obsolete strigæ, and the limb slightly darker, the anterior with a small black dot; posterior wings pubescent.

If this be the Ge. *pusillata* of Wiener Verzeichniss, the larva is green with pale lines, and feeds on the common juniper and birch:—the imago appears in June.

Found in the neighbourhood of Birch-wood, not uncommonly; also in other places within the metropolitan district.

Sp. 26. *plumbeolata*. *Alis plumbeo-cinerascentibus undis numerosis obsoletis saturatioribus pallidioribusque.* (Exp. alar. 7—8 lin.)

Ph. *plumbeolata*. Haworth.—Eu. *plumbeolata*. Steph. Catal. part ii. p. 145. No. 6669.

Wings of a leaden-ash, with numerous very obsolete darker and paler waves; the ordinary black dot wanting.

The plainest species of the genus: the waved strigæ differ a little in regard to their confluence.

Found the end of May and beginning of June in abundance in the lanes leading from Dartford to Darenth-wood.

Sp. 27. *subfulvata*. *Alis anticis fulvis puncto medio nigro, costâ margineque postico fuscis.*

Ph. *subfulvata*. Haworth.—Eu. *subfulvata*. Steph. Catal. part ii. p. 145. No. 6670.

Anterior wings fulvous or tawny, with the costa broadly fuscous, with obscure darker lines; the hinder margin the same, with an indistinct pale waved striga, sometimes dentate externally, the extreme edge with a fine black interrupted line: on the disc towards the costa is a very conspicuous black dot: posterior wings fuscous, with some indistinct abbreviated strigæ towards the inner edge.

Rather scarce; found occasionally in Darenth and Birch Woods, and in other places near London, in the beginning of August. "Meldon-park."—*G. Wailes, Esq.*

Sp. 28. cognata. *Alis anticis cinereis, rufo alboque marmoratis, strigis quatuor geminatis valde undulatis pallidis, lineolis punctoque medio atris.* (Exp. alar. 11 lin.)

Eu. cognata. *Steph. Catal. part ii. p. 146. No. 6671.*—Lar. sobrinata. *Treitschke, v. vi. b. p. 112?*

Anterior wings cinereous, marbled with rufous and white, with four geminated and very much waved pale strigæ; one towards the base, a second in the middle, the third behind the middle, and the fourth towards the posterior margin: several of the nervures are longitudinally streaked with black, and on the inner edge of the second striga is a conspicuous rounded black dot: posterior wings paler, with indistinct darker strigæ.

All the examples I have hitherto seen of this beautiful species were captured in Scotland; three near Edinburgh. "Flisk, N.B."—*Rev. J. Fleming.*

Sp. 29. succenturiata. *Alis omnibus cinerascenti-albis subnëbulosis, costâ anticarum fimbriâque communi fuscis.* (Exp. alar. 11—12½ lin.)

Ph. Ge. succenturiata. *Linné.*—Eu. succenturiata. *Steph. Catal. part ii. p. 146. No. 6672.*

Wings ashy-white, slightly clouded, the anterior with the costa, posterior margin, and a portion of the inner one fuscous; on the disc are some indistinct strigæ, composed of fuscous or blackish dots, and a conspicuous black spot, and on the hinder margin an obsolete waved white striga; cilia fuscous: posterior wings whitish, with the margin and several strigæ fuscous; cilia fuscous: head, thorax, and base of abdomen whitish; the rest of the abdomen dull ferruginous.

Caterpillar chocolate-brown, with white lateral stripes: it feeds on the worm-wood (*Artemisia vulgaris*):—the imago appears in July.

Not very common; found in Coombe and Darenth Woods.

Sp. 30. piperata. *Alis albidis cinereo pulverulentis, costâ anticarum limboque communi fuscescente-cinereis.* (Exp. alar. 9—10 lin.)

Eu. piperata. *Steph. Catal. part ii. p. 146. No. 6674.*

Wings whitish; anterior thickly sprinkled throughout with minute darker or cinereous atoms, somewhat disposed in strigæ, with a small central black dot; the costa and posterior margin fuscous-ash, the latter with an obscure whitish striga: posterior wings whitish at the base, the posterior margin brownish-ash, with irregular pale strigæ; on the hinder margin of all an interrupted faint black line; cilia fuscous.

Taken in the beginning of July on Riddlesdown, near Croydon; apparently scarce.

Sp. 31. *Centaureata*. *Alis albis, anticis maculâ costali fuscâ, fasciâ posticâ ochraceâ, lunulâ atrâ.* (Exp. alar. 8—10 lin.)

Ge. *Centaureata*. *Wien. Verz.*—Eu. *Centaureata*. *Steph. Catal. part ii. p. 146. No. 6673.*

Wings white or cream-colour; the anterior with various dark spots on the costa, towards the apex of which is a large somewhat trigonal fuscous spot, in which is a black lunule; the posterior margin is ochraceous, with a waved pale line, and the inner margin slightly clouded with fuscous; cilia ochraceous-brown with darker clouds: posterior wings also white, with striga on the inner and posterior margins, and a minute central dot fuscous.

In fine examples there are two indented black strigæ on the anterior wings, one before, the other behind, the middle, and enclosing the costal patch.

Caterpillar green, spotted with white: it feeds on the *Centaurea scabiosa* and other plants:—the imago appears in June.

Not uncommon in gardens within the metropolitan district.
“Epping.”—*Mr. H. Doubleday*. “Newcastle.”—*G. Wailes, Esq.*

Sp. 32. *angustata*. *Alis anticis elongatis cinereis, fasciis obliquis albicantibus maculâque medio atrâ.* (Exp. alar. 8—9 lin.)

Ge. *angustata*. *Hübner*.—Eu. *angustata*. *Steph. Catal. part ii. p. 146. No. 6675.*—Ge. *nanata*. *Hübner, Ge. pl. 75. f. 387?*

Anterior wings very long and narrow, cinereous, with three very oblique sub-æquidistant whitish strigæ; the first straight and very oblique, extending from the costa to the middle of the inner margin; the second broader, slightly waved, and placed behind the ordinary discoidal black dot; the last is considerably undulated and more conspicuous, being paler: cilia fuscous, with darker clouds: posterior wings cinereous, with various transverse strigæ and a conspicuous pale one towards the hinder margin.

In some examples the space between the two first strigæ on the anterior wings is of a darker hue than the rest of the wing, and forms a distinct unsolid bar.

Found in the vicinity of Birch-wood in August; not uncommon, also, near Darenth, and at Hertford.—“Gibside.”—*G. Wailes, Esq.*
“Strand-on-the-green.”—*Rev. A. H. Matthews.*

Sp. 33. *variegata*. *Alis albidis, strigis fasciisque fuscis marmoratis*. (Exp. alar. 9—10 lin.)

Ph. *variegata*. *Haworth*.—Eu. *variegata*. *Steph. Catal. part ii. p. 146. No. 6676*.

Wings whitish; anterior with an obsolete unangulated fuscous striga at the base, followed by a narrow fascia; then before the middle another striga, which is again followed by another obscure fascia, composed of three slender fuscous strigæ, in which is a large black dot; the hinder margin is waved with fuscous, interrupted with whitish, and bordered on its extreme edge with a narrow interrupted black line; cilia fuscous, with darker clouds: posterior wings with a central black spot, and the hinder margin clouded with fuscous.

Rare; found at Darenth and Birch Woods in June.

Sp. 34. *consignata*. *Alis glaucescentibus anticis strigis geminatis saturatioribus maculisque costæ hepaticis, lunulâ mediâ atrâ*. (Exp. alar. 9—10 lin.)

Ge. *consignata*. *Borkhausen*.—Eu. *consignata*. *Steph. Catal. part ii. p. 146. No. 6677*.

Wings glaucous: the anterior with liver-coloured spots on the costa, a straight fuscous striga at the base, and a geminated one towards the middle; in the latter a large lunule black spot; on the disc, between the lunule and the inner margin, is a black line, and towards the apex of the wing arises also an oblique geminated striga, and an interrupted black line on the hinder margin itself: posterior wings whitish-ash, with a black spot in the middle, the hinder margin with indistinct strigæ.

Also rare; taken near Birch-wood, and in other places near London, at the end of June or beginning of July.—“Pupæ under whitethorn bark on Langton-wold, Yorkshire, in April.”—*A. Cooper, Esq.*

Sp. 35. *venosata*. *Alis canis, strigis nigris fasciisque undatis albidis subanastomosantibus*. (Exp. alar. 10—12 lin.)

Ph. *venosata*. *Fabricius*.—Eu. *venosata*. *Steph. Catal. part ii. p. 146. No. 6678*.—Ph. *decussata*. *Don. viii. pl. 266. f. 3*.

Wings hoary; the anterior with an incurved black striga at the base; a second towards the middle, composed of two white and three black waved ones; a third beyond the middle, united by an anastomosing flexuous line; a fourth repanded, common, waved one, composed of two white and three black lines, as in the second, and on the margin itself an interrupted black line, several of the nervures between which and the fourth striga are black; cilia clouded with fuscous: posterior wings with anastomosing black lines, nearly as in the anterior.

Not uncommon in the lane leading to Darenth-wood, from the village, in the beginning of June; rare apparently in other parts of the metropolitan district.

GENUS CCXXVII.—CLEOGENE, *Duponchel*.

Palpi very short, velvety, acute: *maxillæ* very long. *Antennæ* bipectinated in the males, simple in the females: *wings* rounded, all of one colour; *cilia* short: *legs* slender.

Cleogene has the antennæ slightly bipectinated in the males, but the genus is distinguished by that character united to the total want of markings on the wings, which are of plain uniform colours, considerably rounded on their hinder margin, and have very short cilia. I have seen but one specimen (a female) belonging to the genus, and am consequently only able to give the above brief character taken from Duponchel's Synopsis of the genera of Geometridæ.

† Sp. 1. *tinctaria*. *Alis omnibus luteis immaculatis*. (Exp. alar. 1 unc. $4\frac{1}{2}$ lin.)
Ge. *tinctaria*. *Hübner*.—Mi. *tinctaria*. *Steph. Catal. part ii. p. 147. No. 6681.*
note.

All the wings luteous immaculate; antennæ black or fuscous.

During the printing of my Catalogue I was informed that this insect had been captured in Worcestershire, and admitted it into our Fauna upon that authority, accompanied by a sign expressing that I had never seen it; but the specimen having been subsequently forwarded to me, proved, upon inspection, to be merely a perfectly immaculate variety of *Angerona Prunaria*; I consequently inserted its name in Italics in my Nomenclature, by way of showing that it was not indigenous; but as Mr. Curtis has recently again recorded it *without doubt* as British, I have placed it in the body of the page, instead of in a foot-note as usual.

I know not in what part of Britain this species has been captured.

Sp. 2. *niveata*. *Alis niveis immaculatis; anticis subtus fuscescentibus*. (Exp. alar. 11 lin.)

Ph. *niveata*. *Scop.*—Mi. *niveata*. *Steph. Catal. part ii. p. 147. No. 6682.*

Head, thorax, and anterior wings pearly white, immaculate; abdomen and posterior wings snow-white; cilia very short; anterior wings beneath brownish. This cannot be the Ph. *nivearia* of Fabricius, which he gives as a native of England, as that insect has the wings angulated, with their hinder margins fuscous, and the posterior wings with a black central dot: what the Fabrician insect is intended for I am at a loss to conjecture.

The only example I know of this species I received from Scotland.

GENUS CCXXVIII.—HYRIA *mihl*.

Palpi very short, ascending, clothed with short compact scales, obtuse, triarticulate; the basal joint short, robust, compressed; the second as long again, slightly attenuated, obtuse; terminal subglobose, closely attached to the preceding: *maxillæ* short. *Antennæ* somewhat remote at their origin, slightly serrated within, ciliated and pubescent in the males, simple in the females: *head* small; *forehead* with a compact ridge of glossy scales between the antennæ: *eyes* small: *thorax* slender, simple: *wings* entire, rounded on the hinder margin, placed in form of a triangle during repose; all with distinct fasciæ, the disc varied, and towards the hinder margin with a flexuous striga; *cilia* very long, uneven: *abdomen* small, slender, carinated down the back, with a small tuft at the apex: *legs* slender; posterior tibiæ in the males without spurs, in the females with one pair (at the apex) only. Larva slender, attenuated at each extremity; pupa folliculate.

The beautiful insects of this genus are remarkable for having the posterior tibiæ of the males spurless, and of the females bicalcarated only, at the apex: these characters, united to the fine purple colour of their varied rounded wings, are sufficient to distinguish them from any of the following genera, some of which resemble them in the first particular.

Sp. 1. *auroraria*. *Alis omnibus purpureis, maculis margineque flavis.* (Exp. alar. 8—10 lin.)

Ge. *auroraria*. *Hübner*.—Hy. *auroraria*. *Steph. Catal. part ii. p. 150. No. 6706.*

Head and thorax purple, the latter yellow behind; wings purple, the anterior with three large golden-yellow spots, rather indistinctly defined, placed in a triangle, the two largest longitudinally on the inner margin, the other, somewhat rounded in shape, towards the costa; the hinder margin is irregularly bordered with golden-yellow, and the cilia are the same and immaculate: nearly parallel with the posterior margin is frequently a fuscous or fuscous, slightly waved striga; posterior wings with only a central golden-yellow spot, but in other respects similar to the anterior: forehead and antennæ white.

Very variable: some examples are nearly all of a rich golden-yellow, with a faint striga towards the base, and a broad one parallel with the linear margin, rich purple; others are nearly all purple.

Caterpillar feeds on the greater plantain (*plantago major*): it is grayish, with a paler lateral and dorsal line:—the imago appears in June.

Found in abundance somewhere in the vicinity of Croydon—the exact locality I know not: also in Norfolk, and near Bristol.

GENUS CCXXIX.—MINOA, *Treitschke*.

Palpi very short, remote, acute, greatly compressed, densely clothed with elongate loose scales, triarticulate; the two basal joints of equal length, the second slighter, rather attenuated, third minute, ovate, obtuse: *maxillæ* rather long. *Antennæ* long, rather thick, simple in both sexes, faintly pubescent within in the males: *head* small; *forehead* not prominent; *eyes* small: *thorax* slender: *wings* placed erect during repose, entire, rounded, of one colour on both surfaces: *cilia* moderate, even: *abdomen* slender, the back carinated, the apex obtuse, with a squamous tuft: *legs* moderate; posterior *tibiæ* with two pair of spurs. Larva naked, rather gay, tapering anteriorly, with the head small: pupa folliculated.

The perfect simplicity of the wings of this genus, combined with their robust simple antennæ, short palpi and cilia, added to the strongly diurnal habits of the insects, which delight in gambolling in the sunshine, and repose with erected wings, sufficiently point out their distinction. Duponchel divides the genus into two, calling *Mi. Chærophyllata* by the term *Tanagra*, which cannot be admitted, even were the genus itself distinct, being long pre-occupied in ornithology.

Sp. 1. *Chærophyllata. Atra, alis anticis apice solo albis.* (Exp. alar. 1 unc.—1 unc. 2 lin.)

Ph. *Chærophyllata. Linné.—Don. vii. pl. 253. f. 4.—Mi. Chærophyllata. Steph. Catal. part ii. p. 146. No. 6679.*

Antennæ, body and wings, excepting a slender border at the apex of the anterior ones, of a deep sooty black, immaculate.

Caterpillar dirty-green, with the head paler: it feeds on the *Chærophyllum sylvestre*:—the imago is found in the beginning of June.

In great profusion in Richmond-park, Kensington-gardens, and in other places within the metropolitan district. “*Rachills.*”—*Rev. W. Little.* “*Gamlingay-heath.*”—*Rev. L. Jenyns.* “*Abundant near Tunbridge-wells, July, 1830.*”—*Miss Harvey.* “*Newbiggin and Black Hall Woods.*”—*T. C. Heysham, Esq.* “*Newcastle, &c.*”—*G. Wailes, Esq.*

Sp. 2. *Euphorbiata. Tota fusco-cinerea, oculis nigris, alis immaculatis.* (Exp. alar. 9—10 lin.)

Ph. Euphorbiata. *Wien. Verz.*—*Don. v. pl. 153. f. 1.*—*Mi. Euphorbiata. Steph. Catal. part ii. p. 147. No. 6680.*

Entirely of an ashy-brown, with a very slight fulvescent tinge, the abdomen and legs darker, and the eyes black; wings immaculate: colour slightly variable in tint.

Caterpillar yellowish-green, with white and black dots, with a dark dorsal line and a larger spot of the same on the last segment; head brown: it feeds on the Euphorbia Cyparissias and E. Esula:—the imago is found towards the end of May.

Not very common; found in Oak of Honour wood, Peckham, also at Coombe and Darenth. “Bagley-wood.”—*Rev. W. T. Bree.* “Epping.”—*Mr. H. Doubleday.*

GENUS CCXXX.—BAPTA *miki*.

Palpi short, remote, ascending, clothed with long scales, obtuse, triarticulate; the basal joint slender, curved, longer than the other two united; the second short, subcylindric, obscurely attenuated; terminal rounded, ovate: *maxillæ* long. *Antennæ* short, slender, simple in both sexes: *head* small; *forehead* slightly prominent: *eyes* globose: *thorax* rather stout, rounded, velvety: *wings* ample, entire, rounded on the hinder margin, colour generally snow-white, with a dark central dot, markings otherwise variable according to the species: *body* somewhat robust, short, attenuated to the apex in both sexes, slightly tufted in the males. *Larva* stout: pupa folliculated.

Bapta is distinguished by its ample pale-snowy-white wings, combined with the brevity of the palpi, long maxillæ, simple abbreviated antennæ, somewhat robust thorax and abdomen, &c.

Sp. 1. bimaculata. *Alis niveis, puncto ordinario atro medio, anticis maculis duabus costalibus atro-fuscis.* (Exp. alar. 1 unc.—1 unc. 2 lin.)

Ph. Ge. bimaculata. *Villers.*—*Ba. bimaculata. Steph. Catal. part ii. p. 147. No. 6683.*

Wings snow-white, all with a minute black dot in the middle; anterior with two dark fuscous, somewhat trigonal spots on the costa, from whence arise two extremely faint undulated fuscous strigæ, the hinder one common to all the wings; on the extreme edge of the wings is a faint brownish striga, and the cilia are immaculate.

Rather local: found in Agg-bush lane, Copenhagen-fields, and in the lanes between Darenth and Birch Woods, in June. “Strand-on-the-green.”—*Rev. A. H. Matthews.*

- Sp. 2. punctata. *Alis niveis, puncto medio nigro, anticis liturâ margineque externo fusco subundato.* (Exp. alar. 1 unc. 1—4 lin.)
 Ph. punctata. *Fabricius.*—Ba. punctata. *Steph. Catal. part ii. p. 147. No. 6684.*

Wings snow-white, all with a central black dot, largest on the anterior, which last has a short fuscous streak on the inner margin in a line with the dot, and the hinder margin itself has an undulated fascia of the same hue, clouded with a darker tinge towards the apex, and having a row of elongate black dots on the extreme edge; cilia fuscous, whitish or snowy towards the anal angle: posterior wings with two evanescent undulated strigæ on the hinder margin: a blackish line on the margin, and the cilia white.

Found in June at Darent-wood, and in its vicinity. “Epping.”
Mr. Doubleday. “Strand-on-the-green.”—*Rev. A. H. Matthews.*

GENUS CCXXXI.—APLOCERA* *mihi.*

Palpi short, slender, acute, remote, obtuse, densely clothed to the apex with rather short compact scales; triarticulate; the basal joint elongate, slender, curved upwards; second much shorter, subcylindric; terminal ovate-acuminate: *maxillæ* rather short. *Antennæ* short, slender, perfectly simple in both sexes: *head* small, round; *forehead* prominent; *eyes* globose, rather prominent: *thorax* slender, simple: *wings* ample, entire; posterior margin rounded; anterior elongate, triangular, transversed with numerous undulated strigæ, condensed occasionally into a central fascia; posterior long, generally of a paler hue and very obsoletely strigated: *abdomen* long, slender, compressed at the base, the back carinated, the terminal segments with conspicuous margins, the apex with a straight tuft.

The antennæ of Aplocera are perfectly simple in both sexes; the forehead is very prominent, and the wings simple, the anterior thickly traversed with numerous waved strigæ; the abdomen rather strongly carinated, and the base compressed.

- Sp. 1. cæsiata. *Alis anticis albidis, atomis cærulescentibus fuscisque, fasciâ dentatâ obscuriore ad costam bifidâ, puncto medio atro.* (Exp. alar. 1 unc. 3—6 lin.)
 Ge. cæsiata. *Wien. Verz.*—Ap. cæsiata. *Steph. Catal. part ii. p. 141. No. 6625.*

Anterior wings whitish-ash, irrorated with bluish and fuscous, and thickly marked with undulated strigæ, condensed into a broad dentate fascia, in the middle of the wing, having a pale patch, in which is a fuscous dot, on or

* Απλοος, simplex; κερως, cornu.

towards the costa; near the hinder margin is a distinct striga of white arcs; cilia ashy, with a dark line and fuscous spots: posterior wings whitish, with a central fuscous dot, and with one or more fuscous strigæ towards their hinder margin, on which is an interrupted black line: cilia ashy, with trigonal fuscous spots.

Extremely variable in colour, and with regard to the solidity of the central fascia of the anterior wings, it being sometimes very distinct, at others scarcely discernible.

Apparently very abundant on old walls and in the north of England in June, whence I have received numerous examples. "Derbyshire."—*Rev. W. T. Bree*. "Keswick."—*G. Wailes, Esq.*

Sp. 2. *flavicinctata*. PLATE 30. f. 3. *Alis anticis albidis, atomis cæruleis, fasciâ initio bipartitâ, fusco flavoque mixtâ, puncto medio nigro.* (Exp. alar. 1 unc. 4—6 lin.)

Ge. *flavicinctata*. *Hübner*.—Ap. *flavicinctata*. *Steph. Catal. part ii. p. 141. No. 6626.*

Wings whitish, sprinkled throughout with bluish atoms, and adorned with numerous transverse strigæ and about five flavescent fasciæ, two of which are basal—other two form, as it were, the outline of the usual central fascia, which is open on the costa, with an elongate black dot within, and its posterior edge sinuated; towards the hinder margin is the fifth flavescent fascia, adjoining to which exteriorly is a white striga composed of arcs: cilia pale, with fuscous spots: posterior wings fuscous-ash, with two or three darker and paler strigæ towards the hinder margin, on which is an interrupted black line: cilia pale, with fuscous spots.

Also found in the north: my specimens, which are extremely fine, were captured in June, 1827, in Cumberland.

GENUS CCXXXII.—EMMELESIA * *mihî*.

Palpi short, parallel, acute, not very remote, clothed with short compact scales, acute, triarticulate, the articulations short; basal one curved, rather stouter than the second, which is subcylindric, terminal subglobose: *maxillæ* rather long. *Antennæ* simple in both sexes, sometimes pubescent in the males, placed on the edges of a prominent tuft of scales on the *forehead*, which is gibbous anteriorly: *head* round; *eyes* small, slightly prominent: *thorax* slender, velvety: wings entire, placed in a triangle during repose, the hinder margin rounded; anterior transversely marked with numerous waved strigæ and alternate paler fasciæ, the former sometimes condensed into a central

* Εμμελῆς, concinnus.

band; or in other cases traversed with simple waved darker strigæ alone on a pale ground; posterior frequently resembling the anterior, sometimes obtusely angulated: *abdomen* rather short, stout, acuminate to the apex, which has a rather conspicuous broad tuft in the males.

The pretty insects that constitute this genus—which is palpably a very artificial one—may be readily known by their plain light-coloured wings, which are usually adorned with numerous dark transverse strigæ intermixed with pale fasciæ: the palpi are short, and the antennæ simple. The first twelve and the last species differ considerably in habit from the intermediate ones and from each other: the genus must hereafter be subdivided.

Sp. 1. *decolorata*. *Alis albidis, anticis strigis fusco-testaceis confluentibus, fasciâ interruptâ strigâque posticâ albis.* (Exp. alar. 1 unc.—1 unc. 2 lin.)

Ge. *decolorata*. *Hübner*.—Em. *decolorata*. *Steph. Catal. part ii. p. 147. No. 6685.*

Wings whitish, the anterior with several fusco-testaceous strigæ, forming fasciæ by their confluence, the central one being most conspicuous and bilobed in the middle of the posterior margin; this is followed by a white fascia, which is interrupted in the middle by the lobe of the fascia; on the hinder margin is an undulated white striga.

Very abundant in the hedges and lanes in the fields between Pentonville and Highgate, also at Hertford, towards the end of June. “Epping.”—*Mr. Doubleday*. “Strand-on-the-green.”—*Rev. A. H. Matthews*. “Newcastle, Keswick, &c.”—*G. Wailes, Esq.*

Sp. 2. *affinitata*. *Alis subfulvo-fuscis, fusco undatim substrigatis, rivulâque undatâ conspicuâ albâ pone medium.* (Exp. alar. 1 unc.—1 unc. 1 lin.)

Eu. *affinitata*. *Steph. Catal. part ii. p. 148. No. 6687.*—Em. *Alchemillata*. *Haworth*.—*Steph. Catal. part ii. p. 148. No. 6686. dele* *Synon. Hüb.*

Anterior wings somewhat of a tawny-brown, and obsoletely strigated with fuscous waves; beyond the middle is a conspicuous narrow sinuated white fascia, in which is a fuscous waved striga; into this fascia, near the middle, the brown base of the wing extends in a double lobe; and between the fascia and the hinder margin is a very obsolete striga, composed of white lunules, and at the apex an obscure oblique fuscous spot: posterior wings pale fuscous, with a somewhat crenated paler fascia a little behind the middle.

Not very common: taken occasionally in Copenhagen-fields in June, and in the vicinity of Hertford. “Epping.”—*Mr. Doubleday*. “Davidson’s-bank.”—*T. C. Heysham, Esq.* “Meldon-park.” *G. Wailes, Esq.*

Sp. 3. *turbaria*. *Alis anticis fuscis, fusco alboque undatim substrigatis, rivulâque angustâ undatâ albâ pone medium, posticis pallidioribus fimbriâ saturatiore.* (Exp. alar. 10—11 lin.)

Ge. *turbaria*. *Wien. Verz.*—Em. *rivulata*. *Steph. Catal. part ii. p. 148. No. 6688.*

Anterior wings fuscous, with obsolete whitish and fuscous waved strigæ, and behind the middle a narrow undated whitish fascia, into which the fuscous colour of the base projects in a single lobe towards the middle; in this fascia is an obscure fuscous striga, between which and the hinder margin, on the costa, is a zigzag white streak, and some very obscure unconnected rudiments of a striga towards the posterior margin: posterior wings paler, sometimes whitish, with the margin fuscous, and having an indistinct whitish striga.

Common in some places within the metropolitan district towards the end of June and beginning of July, especially near Kentish-town. “Raehills.”—*Rev. W. Little*. “Epping.”—*Mr. Doubleday*. “Flisk, N. B.”—*Rev. J. Fleming*. “Alderley, Cheshire.”—*Rev. E. Stanley*. “Hill-ends.”—*T. C. Heysham, Esq.*

Sp. 4. *rivulata*. *Alis anticis fuscis, fasciâ pone medium strigisque duabus niveis.* (Exp. alar. 8—9 lin.)

Ph. *nassata*. *Fabricius?*—Em. *nassata*. *Steph. Catal. part ii. p. 148. No. 6689.*

Anterior wings fuscous, with an obscure whitish striga before the middle, a distinct waved fascia behind the middle, in which is a slender fuscous striga, and a second very delicate striga towards the hinder margin, composed of white arcs: posterior wings fuscous.

Caterpillar greenish-yellow, lineated with reddish-brown: it feeds on the *Lamium purpureum*:—the imago is found about the middle of June.

Local and rather scarce: found in grassy places near woods: about Coombe, and near Hertford, I have occasionally found specimens. “Raehills.”—*Rev. W. Little*.

Sp. 5. *ericetata*. PLATE 32. f. 2. *Alis cinereo-albidis, basi fasciâ medio, marginæque postico in quâ strigâ subundulatâ albâ, cinereo-fuscis.* (Exp. alar. 7—8 lin.)

Ge. *ericetata*. *Dale MSS.*—Em. *ericetata*. *Steph. Catal. part ii. p. 148. No. 6690.*

Anterior wings ashy-white, with the base, a sinuated fascia in the middle, in which is a black dot towards the costa, and the hinder margin ashy-brown; on the marginal fimbria is a distinct, slightly waved, whitish striga: posterior wings fuscous-ash, with whitish waved strigæ towards the hinder margin.

Apparently not very rare in the north of England and in Scotland, whence I have seen many specimens, all of which were

captured in June: mine are from Cumberland. “Flisk, N. B.”—*Rev. J. Fleming.*

Sp. 6. *blandiata*. *Alis anticis niveis, fasciâ mediâ interruptâ fuscâ, margine externo fuscescente strigâ undatâ albâ, posticis basi albis, margine externo dilute fuscis.* (Exp. alar. 9 lin.)

Ce. *blandiata*. *Wien. Verz.?*—Em. *blandiata*. *Steph. Catal. part ii. p. 148. No. 6693.*

Anterior wings snowy-white, with an interrupted fuscous fascia in the middle; the hinder margin brownish, with an undulated white striga; cilia whitish, with yellowish-brown clouds: posterior wings white at the base, with the hinder margin pale fuscous.

Also found in the north in June.

Sp. 7. *albulata*. *Alis anticis fasciis griseo-fuscescentibus albisque alternis, strigâque posticâ albâ undulatâ communi.* (Exp. alar. 9—10 lin.)

Ph. *albulata*. *Wien. Verz.*—Em. *albulata*. *Steph. Catal. part ii. p. 148. No. 6691.*

Anterior wings whitish, with narrow alternate griseous-brown fasciæ and obsolete subundulated whitish strigæ; the posterior margin griseous-brown, with a waved whitish striga common to all the wings; cilia whitish, with fuscous clouds, and a faint dusky line towards the base: posterior wings brownish, with a narrow whitish fascia towards the hinder margin; cilia cinereous.

Found in Battersea-fields towards the end of June or beginning of July, and in other places within the metropolitan district not very uncommon. “Meldon-park.”—*G. Wailes, Esq.* “Epping.”—*Mr. Doubleday.* “Rose-castle.”—*T. C. Heysham, Esq.*

Sp. 8. *trigonata*. *Alis albis, fasciâ cinerascente basi alterâque medio costæ trigonâ, limboque omni postico cinereis, strigâ albidâ.* (Exp. alar. 9 lin.)

Ph. *trigonata*. *Haworth.*—Em. *trigonata*. *Steph. Catal. part ii. p. 148. No. 6692.*

Anterior wings white, with an ashy fascia at the base, and the posterior margin cinereous, the last with a strongly waved white striga; on the middle of the costa is a deep-fuscous triangular spot, having a black dot at the inner apex, and opposite to this on the inner margin is a rudiment of a transverse fascia, from which extend two obsolete strigæ towards the costal spot: posterior wings white at the base, with the hinder margin cinereous, with a whitish waved striga.

Found near Westerham and in Cumberland in June.

Sp. 9. *tæniata*. *PLATE 32. f. 3.*—*Alis anticis fulvo-cinereis, basi fasciâque medio fuscâ liturâque posticâ subferrugineâ.* (Exp. alar. 11 lin.)

Em. *tæniata mihi.*

Anterior wings fulvous-ash, with the base fuscous, a broad fascia of the same colour in the middle, somewhat sinuated without, and banded with a white waved line, beyond which on the costa is a patch of a dull-ferruginous hue, followed by a pale one on the middle of the posterior margin, and by a row of minute white lunules, forming an interrupted striga; on the hinder margin itself is a row of geminated black dots; posterior wings fuscous-ash, with a pale striga behind the middle.

Rather variable: in one of my specimens the anterior wings are rather thickly marked with transverse waved strigæ.

Of this pretty insect I have as yet seen but four specimens, all of which were captured in Cumberland in July, 1827.

Sp. 10. *unifasciata*. *Alis anticis griseo-fuscis, fasciâ medio fuscâ, maculâ posticâ alterâque apicis didymatis fuscis.* (Exp. alar. 10—11 lin.)

Ph. *unifasciata*. *Haworth.*—Em. *unifasciata*. *Steph. Catal. part ii. p. 148. No. 6694.*

Anterior wings griseous-brown, with a darker or fuscous central fascia, which has a rounded lobe towards the costa; this is followed by a very obscure whitish fascia, in which is a fuscous striga, beyond which is a whitish waved one; adjoining to this last towards the apex is a faint didymated fuscous spot, and an oblique striga at the apex itself; on the hinder margin is a nearly continuous black line: posterior wings fuscous, with a faint central darker dot.

Rare: found at Westerham and Birch-wood in June.

Sp. 11. *bifasciata*. *Alis cinereis, fasciâ obliquâ subrectâ, maculâ posticâ, alterâque apicis fuscis didymatis.* (Exp. alar. 11 lin.)

Ph. *bifasciata*. *Haworth.*—Em. *bifasciata*. *Steph. Catal. part ii. p. 148. No. 6695.*

Anterior wings cinereous, with an oblique, rarely straight, central fascia, bordered on each side with white, and produced into rather an acute lobe without; behind this towards the costa is a geminated fuscous spot, and an oblique line reaching to the apex; on the hinder margin is an interrupted black line: posterior wings cinereous, with a fuscous central dot.

Also rare: found at Birch-wood, near Dover, Cambridge, and Edinburgh, in June. “Flisk, N. B.”—*Rev. J. Fleming.*

Sp. 12. *rusticata*. *Alis lacteis puncto medio nigro, anticis fasciâ medio undatâ fuscâ.* (Exp. alar. $7\frac{1}{2}$ —8 lin.)

Ph. *rusticata*. *Wien. Verz.*—Em. *rusticata*. *Steph. Catal. part ii. p. 148. No. 6696.*

Wings milky-white, all with a central black dot; anterior somewhat clouded with fuscous at the base, and with an undulated, or rather trilobed, fascia of

the same colour in the middle; towards the hinder margin in fine specimens is a waved fuscous striga, and on the hinder margin itself a few detached black dots: posterior wings whitish, more or less transversely waved with fuscous; and also with a row of black dots on the hinder margin: cilia of all white.

In some examples, the hinder margin of the anterior wings wants the undulated fuscous striga and the black dots.

Taken on palings in June near Eltham and Bexley; also at Coombe: not common.

Sp. 13. *sylvata*. *Alis albidis fusco atomosis nebulosisque, fasciâ strigisque obscurioribus, margine externo nigro punctato.* (Exp. alar. 11—12 lin.)

Ph. *sylvata*. *Wien. Verz.*—Em. *sylvata*. *Steph. Catal. part ii. p. 149. No. 6699.*—Ph. *testacea*. *Don. xiv. pl. 487. f. 1.*

Wings whitish, sprinkled with minute fuscous atoms and slightly clouded; the anterior have some obscure strigæ at the base, a fascia composed of three or four confluent strigæ in the middle; anterior to which is a distinct fuscous dot, and behind it a clear sinuated striga; and on the hinder margin is a broken line of black dots; cilia cinereous: posterior wings nearly similar.

Antennæ slightly ciliated in the males.

Found occasionally at Coombe-wood in June, and I once found a specimen at Ripley. “Rose Castle.”—*T. C. Heysham, Esq.*

Sp. 14. *candidata*. *Alis niveis, strigis communibus undatis inæquidistantibus flavescentibus.* (Exp. alar. 9—10 lin.)

Ph. *candidata*. *Wien. Verz.*—Em. *candidata*. *Steph. Catal. part ii. p. 149. No. 6700.*

Wings snow-white, with a central brownish dot; all with numerous very much waved inæquidistant flavescens or griseous strigæ, and the hinder margin of the anterior, and sometimes of the posterior, with a row of minute black dots.

The strigæ vary a little in position, and are sometimes slightly confluent.

Extremely abundant in woods in June throughout the metropolitan district. “Epping.”—*Mr. Doubleday*. “Meldon-park, Tynemouth, &c.”—*G. Wailes, Esq.*

Sp. 15. *luteata*. *Alis luteo-flavis, strigis numerosis communibus inæquidistantibus undatissimis rufo-luteis, punctoque medio fulvo.* (Exp. alar. 9—10 lin.)

Ph. *luteata*. *Wien. Verz.*—Em. *luteata*. *Steph. Catal. part ii. p. 149. No. 6701.*
—Ph. *flavostrigata*. *Don. xi. pl. 386. f. 1, 2.*

Wings luteous-yellow, with a central fulvous-brown dot; all with numerous

common, very considerably waved and somewhat confluent, inæquidistant rufo-luteous strigæ; less numerous on the posterior wings; cilia with a fulvescent cloud in the middle of the hinder margin of all the wings.

Less common than the last, but not unfrequent in Darenth and Birch Woods, and near Dover, Hertford, and Ripley. "Epping."—*Mr. Doubleday*. "Flisk, N. B."—*Rev. J. Fleming*. "Strand-on-the-green."—*Rev. A. H. Matthews*. "Newcastle."—*G. Wailes, Esq.*

Sp. 16. *heparata*. *Alis anticis pallidè lutescentibus, strigis confluentibus limboque hepaticè-fuscis, posticis fuscis.* (Exp. alar. 1 unc.—1 unc. 1 lin.)

Ge. *heparata*. *Wien. Verz.*—Em. *heparata*. *Steph. Catal. part ii. p. 149. No. 6702.*

Anterior wings pale or dull lutescent, with two somewhat contiguous, or confluent, fuscous strigæ behind the middle, a little waved towards the costa, and sometimes nearly obliterated; the hinder margin dull-brown, immaculate: posterior wings fuscous, obsoletely angulated; all with the cilia pale luteous, spotted with fuscous.

Caterpillar grass-green, with two whitish lateral stripes and two white spots on each segment; head spotted with black: it feeds on the birch (*Betula alba*):—the imago is found in June.

Rather scarce: found in the beginning of July near Coombe, and at Darenth and Ripley.

GENUS CCXXXIII.—STRENIA, *Duponchel*.

Pulpi short, depending, densely clothed with scale-like hairs, triarticulate; the basal joint curved, not very robust, rather longer than the second, which is short, elongate-ovate; terminal also elongate-ovate, acuminate: *maxillæ* rather long. *Antennæ* simple in both sexes, short, very slender, slightly pubescent within in the males: *head* small; *forehead* slightly prominent: *eyes* globose: *thorax* slender: *wings* forming a triangle during repose, all marked with longitudinal and transverse lines; the anterior with the hinder margin slightly repanded; posterior obsoletely angulated in the middle, and a little indented: *body* short, very slender in the males, with a small anal tuft; stouter and obtuse in the females; in both sexes carinated down the back, and annulated with white: *legs* simple; posterior *tibiæ* rather short, with two pair of spurs in both sexes.

This forms part of the genus *Hercyna* of my Catalogue, since published by *Duponchel* with the above name, which I have adopted: its singularly reticulated wings at once point out its dis-

similarity from all the foregoing insects, exclusively of their diversity in form and other characters.

Sp. 1. *clathrata*. *Alis omnibus flavicantibus aut albidis, venis strigisque anastomosantibus sinuctis fuscis.* (Exp. alar. 11 lin.—1 unc. 2 lin.)

Ph. Ge. *clathrata*. Linné.—*Don*. vii. pl. 248. f. 2.—*Hercyna clathrata*. Steph. *Catal.* part ii. p. 149. No. 6703.

Wings in general yellowish and pulverulent, sometimes whitish; all with the nervures fuscous, and with transverse common, more or less broad strigæ, occasionally anastomosing, usually four in number, but variable, sometimes one and sometimes another being wanting, and in some cases two become united into a kind of fascia; cilia flavescent or whitish, according to the colour of the wing, with large quadrate fuscous spots.

In some rare instances the wings are deep fuscous, with a few scattered white spots, the positions of the strigæ being scarcely visible; while in others the wings are very delicately strigated, the strigæ being very narrow and remote, and the nervures but faintly fuscous:—it is in fact a most variable insect.

Caterpillar bluish-green, with a pale lateral stripe spotted with black: it feeds on trefoil (*Trifolium Meliloti*):—the imago is found at the end of May, and again about the middle of July, frequenting chalky districts.

Local, but very abundant where found, especially at Darenth and near Hertford. “York.”—*W. C. Hewitson, Esq.* “Newcastle and Tynemouth.”—*G. Wailes, Esq.* “Durdar.”—*T. C. Heysham, Esq.* “Wood Ditton, Ely, &c. not unfrequent.”—*Rev. L. Jenyns.* “Epping.”—*Mr. Doubleday.* “Strand-on-the-green.”—*Rev. A. H. Matthews.*

GENUS CCXXXIV.—VENILIA, *Duponchel.*

Palpi short, somewhat approximating, sparingly clothed with rather long loose scales, triarticulate; the basal joint longer than the other two united, rather incrassated, curved at the base; the second somewhat fusiform; terminal minute, subglobose, acute at the apex: *maxillæ* long. *Antennæ* simple, slightly robust in the males, slender in the females: *head* small; *forehead* not prominent: *eyes* small: *thorax* slender: *wings* forming a triangle during repose; anterior with the hinder margin repanded, posterior obscurely emarginated towards the apex; all, without fasciæ, of a yellow or flavescent hue, more or less irregularly spotted on both surfaces with a dark colour.

In this genus the wings are maculated on both surfaces with large black blotches, disposed somewhat in transverse fasciæ; the posterior

margin of the anterior is excised, and of the posterior a little sinuated; the palpi have the basal joint very long, and are loosely clothed with long hair-like scales: such, at least, are the prevailing characters.

Sp. 1. *maculata*. *Alis fulvis aut flavis, maculis numerosis sparsis fuscis*. (Exp. alar. 1 unc. 1—3 lin.)

Ph. Ge. *maculata*. *Linné*.—*Don*. vii. pl. 251. f. 3.—*Hercyna maculata*. *Steph. Catal. part ii. p. 150. No. 6704*.

Wings fulvous or yellow; the base with a few scattered fuscous atoms; the anterior with four rows of large fuscous spots; the first towards the base nearly confluent as a fascia; the second before the middle mostly divided; the third behind the middle, and uniting with the second on the inner margin; the fourth towards the hinder margin, usually composed of three large spots; the hinder margin itself and the cilia are fuscous, more or less interrupted, especially towards the anal angle, with fulvous or yellow: posterior wings nearly similar, but the hinder margin more divided.

Variable as to the bulk, as well as intensity of the strigæform spots, and in their confluence: in some instances they are universally united, and in others divided; sometimes they are very faint in colour, at others nearly black. I have seen an example (in Mr. Witherington's collection) in which the two rows of central spots are wanting, and the hinder margin has a continuous fascia, which gives a most singular appearance to the insect.

Caterpillar green, with a black dorsal and pale lateral line; it feeds on the archangel (*Lamium album et purpureum*):—the imago appears towards the end of May.

Extremely abundant in all the metropolitan woods, and in other parts of the south. “Epping.”—*Mr. Doubleday*. “Corby-woods, Allesley, and not observed elsewhere in this county (Warwickshire); Oxford, not uncommon.”—*Rev. W. T. Bree*. “Strand-on-the-green.”—*Rev. A. H. Matthews*.

Sp. 2. *quadrinaculata*. *Alis luteo-flavis aut sulphureis, costa basi nigro irrorata maculisque tribus aut quatuor æquidistantibus atris*. (Exp. alar. 1 unc. 1 lin.)

Ge. *quadrinaculata*. *Hatchett. Entom. Trans. v. i. pl. 7. f. 3*.—*Hercyna 4-maculata*. *Steph. Catal. part ii. p. 150. No. 6705*.

Wings luteous-yellow or sulphureous; the anterior with the base of the costa sprinkled with fuscous, and the costa itself with three or four distinct black or fuscous spots: posterior wings rather darker, immaculate.

I possess a specimen wanting the spot towards the apex of the anterior

wings, having therefore only three spots, as above mentioned, in lieu of four.

Very local: found in the beginning of May in a wood near Colney-hatch.

GENUS CCXXXV.—PTYCHOPODA * *mihi*.

Palpi short, slender, subparallel, acute, slightly clothed with scales, triarticulate; the basal joint curved, shorter than the second, which is attenuated; terminal elongate-ovate, obtuse: *maxillæ* long. *Antennæ* short, ciliated more or less in the males, simple in the females: *head* small; *forehead* depressed: *eyes* large, globose: *thorax* slender: *wings* entire on the hinder margin; posterior sometimes a little sinuated, placed nearly horizontally during repose, all of an uniform colour, with a black point in the centre, and obscure transverse strigæ; the hinder margin generally having a waved fascia, composed of more or less confluent dots or clouds: *abdomen* rather long, slender, with an acute tuft at the apex in the males; short, more robust and acute in the females: *legs* rather short; posterior *tibiæ* more or less incrassated, sometimes without spurs, at others with one or two pair, and in the typical males with a very long fascicle of hairs, arising at the base of the inner surface, and capable of being expanded like a fan: posterior *tarsi* in some instances very short.

The males of this genus are nearly all distinguished by some peculiarity in the structure of the posterior legs: in the typical species, the *tibiæ* are compressed and have a groove on the inner edge, in which a large fascicle of long hairs, capable of being expanded at the will of the animal, is placed; those *tibiæ* are frequently destitute of spurs, and the *tarsi* of the same legs are often very much abbreviated:—some of these characters also obtain in some of the following genera, but the present may be known therefrom by the rotundity and brevity of the wings, which are generally adorned on their hinder margin by a waved fascia of dark clouds, placed behind a sinuous striga.

A. Posterior *tibiæ* of the males without spurs; of the females with one pair at the apex.

Sp. 1. *dilutaria*. *Alis* griseo-albidis, strigis duabus distantibus anticis, aliisque confertis limbi communibus saturatioribus. (Exp. alar. 10—11 lin.)

Ge. *dilutaria*. *Hübner?*—Pt. *dilutaria*. *Steph. Catal. part ii. p. 151. No. 6713.*

* Πτυζ, plica; πους, pes.

Anterior wings whitish, with a lutescent tinge, with a slender subfuscous slightly repanded striga before the middle, and a second common one, also repanded, behind the middle, a little beyond a conspicuous black dot; the limb of all the wings is cinerascens, being adorned with four or five alternate whitish or fuscous tinted strigæ, and a row of black dots on the extreme edge: posterior wings nearly similar to the anterior, also with a black central dot placed midway between the first and second strigæ.

Common on the borders of woods at Coombe, Darent, &c.
 “Epping.”—*Mr. Doubleday*. “Newcastle.”—*G. Wailes, Esq.*
 “Flisk, N. B.”—*Rev. J. Fleming*.

Sp. 2. *fimbriolata*. *Alis albidis strigâ centrali communi limboque perfusco hâc strigâ undulatâ albidâ*. (Exp. alar. 11 lin.)

Pt. *fimbriolata mihi*. *Steph. Catal. pt. ii. p. 151. No. 6714.*

Wings whitish, all with a minute deep-fuscous central dot, a pale-fuscous nearly straight central striga, and the posterior margin broadly deep fuscous, with a waved white striga traversing it; cilia fuscous.

Found in the neighbourhood of London in June.

Sp. 3. *cinereata*. *Alis cinereis, puncto centrali margineque postico undato fusco*. (Exp. alar. 11 lin.)

Ph. *cinereata*. *Fabricius?*—Pt. *decoraria?* *Steph. Catal. part ii. p. 151. No. 6712.*

Wings cinereous, with a very obscure common central striga and ordinary dot fuscous; the posterior margin also irregularly fuscous.

Also taken in June within the metropolitan district.

Sp. 4. *lividata*. *Alis albido-cinerascentibus, strigis obsoletis fuscâque marginali dimidiatâ fuscis*. (Exp. alar. 9—10 lin.)

Ph. *Ge. lividata*. *Linné*.—Pt. *lividata*. *Steph. Catal. pt. ii. p. 150. No. 6710.*

Wings whitish-ash, sometimes flavescent or ochreous, remotely sprinkled with minute fuscous atoms, with three small æquidistant costal spots, from which three more or less distinct strigæ extend to the inner margin, the central one being most obscure: on the hinder margin of the wings, at the anal angle, behind the third striga, are three or four fuscous spots bordered with whitish, from which a very obscure whitish waved striga extends to the costa, beyond which the tint is more or less fuscous; posterior wings nearly similar; all with a central fuscous dot, and a row of clear black dots on the hinder margin; cilia whitish-ash.

Not uncommon in June in woods and hedges near London.
 “Tynemouth.”—*G. Wailes, Esq.* “Flisk, N. B.”—*Rev. J. Fleming*. “Strand-on-the-green.”—*Rev. A. H. Matthews*.

Sp. 5. *bisetata*. *Alis albido-lutescentibus costâ basi, anticarum, fasciâque posticâ ex maculis tribus geminatis subconfluentibus fuscis.* (Exp. alar. 10 lin.)

Ph. *bisetata*. *Hufnagle*.—Pt. *trigeminata*. *Steph. Catal. part ii. p. 150. No. 6711.*

Wings whitish-lutescent or yellowish, with a central black dot; the anterior with the base of the costa fuscous, and two or three faint dots beyond; toward the hinder margin is an indented fuscous striga, behind which is a fascia composed of somewhat confluent dusky or blackish spots, and on the anal angle an abbreviated waved striga: posterior wings nearly immaculate, with a slightly dusky striga towards the hinder margin; at the base of the cilia of all the wings is a row of minute fuscous dots.

Less abundant and more local than the last: found in June at Darenth and Birch Woods. “Strand-on-the-green.”—*Rev. A. H. Matthews.*

B. Posterior tibiæ of the males without spurs; of the females with one pair at the apex, and a second pair in the middle.

Sp. 6. *ornata*. *Alis niveis puncto medio nigro fimbriâ sinuatâ communi, ex maculis albidis griseis fuscescentibusque connexis.* (Exp. alar. 1 unc.—1 unc.

Ge. *ornata*. *Wien. Verz.*—Pt. *ornata*. *Steph. Catal. part ii. p. 152. No. 6727.*

Wings snow-white, with a minute central black dot; all with an elegant border, very much sinuated on its inner edge, and blackish in parts, composed of griseous spots interiorly, and outwardly of whitish and fuscescent united strigæ and insulated fuscous spots; on the extreme edge is an interrupted line, partly black and partly fuscous; cilia fuscescent, with lighter shades: on the disc are sometimes one or two very obsolete strigæ.

Rare; or rather not very common: found at Darenth in June, and in the New Forest and Devonshire. “Strand-on-the-green.”—*Rev. A. H. Matthews.*

Sp. 8. *incanata*. *Alis griseo-albidis fusco-pulverulentibus, puncto medio, strigisque obscuris undatis fuscis, margine externo nigro punctato.* (Exp. alar. 1 unc. 1 lin.)

† Sp. 7. *limboundata*. *Alis albido-lutescentibus, strigâ post medium evanescente, fimbriâque costam non attingente, ex maculis strigisque fasciis confluentibus.* (Exp. alar. 1 unc. 3—4 lin.)

Ph. *limboundata*. *Haworth (!)*.—Pt. *limboundata*. *Steph. Catal. part ii. p. 152. No. 6728. note.*

Wings lutescent-white, with an evanescent striga behind the middle, and a fimbria on the hinder margin, not touching the costa, composed of confluent fuscous spots and strigæ.

In the late Mr. Francillon's collection, but supposed to have been from Georgia.

Ph. Ge. incanata. *Linné?*—Pt. incanata. *Steph. Catal. part ii. p. 152. No. 6722.*

Wings griseous-white, with a minute central fuscous dot; all pulverulent, with obscure darker waved strigæ; the first arcuated, sometimes wanting; the second repanded, behind the dot, composed of dots; the third between this and the hinder margin, and bordered with white without; on the margin is an obsolete striga of fuscous dots, and on the margin itself a series of black dots; cilia immaculate: posterior wings nearly similar.

Found at the end of June, on the coast, in Norfolk; also near Dover, Christchurch, Teignmouth, Kingsbridge, &c. “Cummersdale.”—*T. C. Heysham, Esq.*

Sp. 9. contiguaria. *Alis albidis subpulverulentibus, puncto medio strigisque communibus denticulatis fuscis, margine externo nigro-punctato.* (Exp. alar. 1 unc. 1 lin.)

Ge. contiguaria. *Hübner.*—Pt. contiguaria. *Steph. Catal. part ii. p. 152. No. 6723.*

Wings whitish, slightly but obscurely pulverulent; all with a central black dot, and with about four common denticulated fuscous strigæ; the hinder margin clouded with fuscous, and with a minute row of black dots.

Found in Norfolk and near Dover: it is supposed by Treitschke to be a variety of the foregoing species; in which opinion I coincide.

Sp. 10. immutata. *Alis floris lactis colore, aut albidis, puncto ordinario atro, strigisque subquinque communibus lutescentibus.* (Exp. alar. 10—11 lin.)

Ph. Ge. immutata. *Linné.*—Pt. immutata. *Steph. Catal. part ii. p. 152. No. 6729.*

Wings cream-coloured or whitish, powdered with fuscous; all with a central black dot, and with about five common nearly æquidistant waved lutescent strigæ, most indistinct on the posterior wings; hinder margin sometimes with a faint row of minute black dots; cilia immaculate.

The strigæ on the wings are sometimes nearly obliterated.

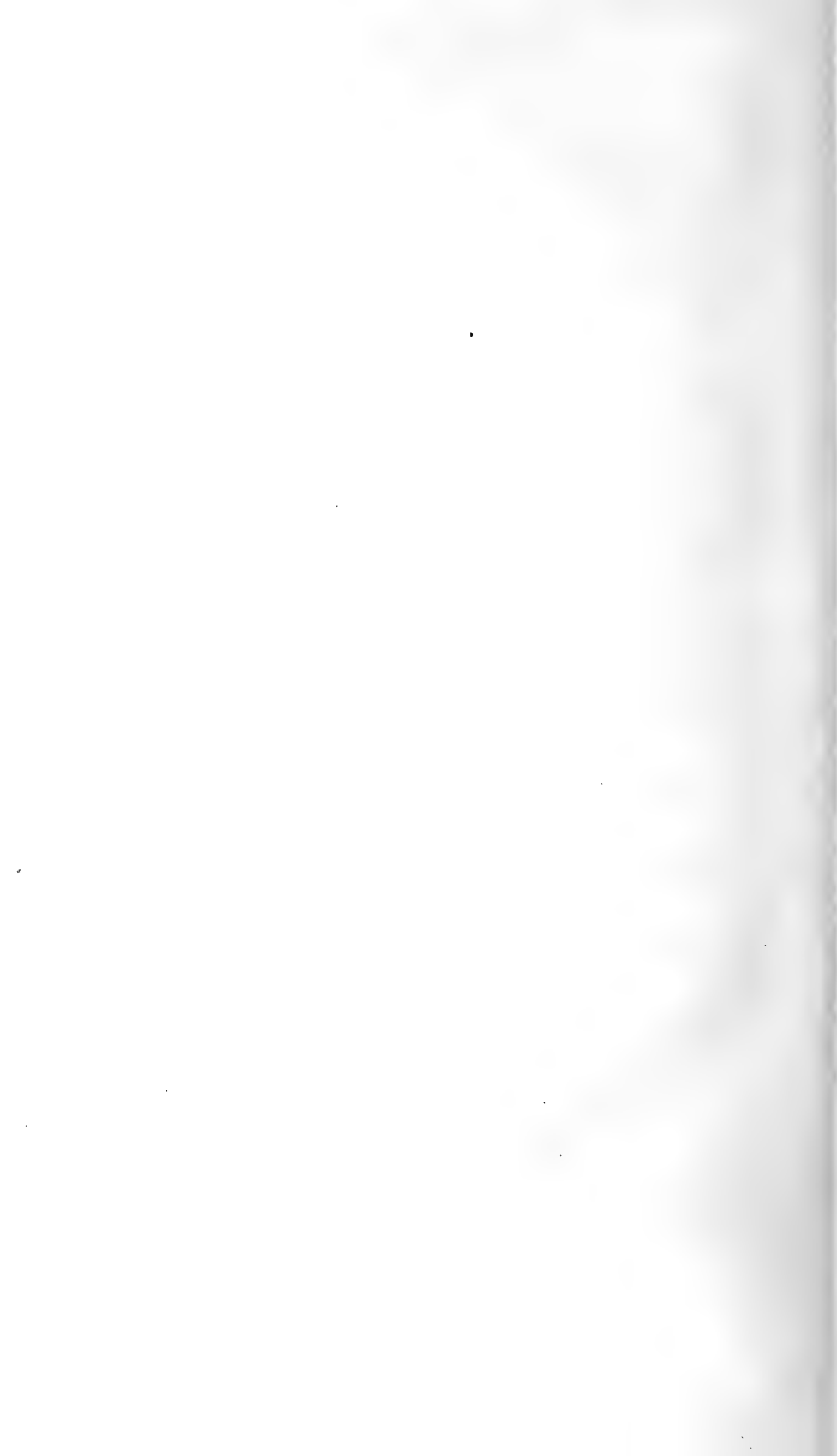
Found, at the end of June and the beginning of July, in boggy and marshy places in Norfolk, and apparently in profusion on the borders of Yaxley-mere. “Baron-wood.”—*T. C. Heysham, Esq.*

Sp. 11. rubricata. *PLATE 31. f. 1. Alis purpurascentibus, strigis undatis fuscis.* (Exp. alar. 11 lin.)

Ge. rubricata. *Wien. Verz.*—Emmelesia rubricata. *Steph. Catal. part ii. p. 148. No. 6697.*

† Sp. 12. purpurata. *Alis virescentibus, anticis fasciis duabus purpureis, posticis luteis subtilis liturâ purpurascente.*





Wings purplish-red, with three dark purplish-brown strigæ; the two first slightly curved, the third a little undulated, and between the last and the hinder margin is a very obscure rudimentary pale waved striga, visible only in certain lights; cilia yellowish-red.

Antennæ of the male rather strongly ciliated:—probably more allied to the following genus than to the present.

One specimen was taken near Dover, I think, in 1825. I possess one that was subsequently captured near York.

GENUS CCXXXVI.—ACIDALIA, *Treitschke*.

Palpi very short, slender, sparingly clothed with scales, acute, triarticulate; the basal joint long, curved; the second shorter, subattenuated; terminal oblong-ovate, rather broader than the apex of the second: *maxillæ* long. *Antennæ* slender, simple in both sexes, more or less slightly ciliated in the males: *head* small: *forehead* depressed: *eyes* large, globose: *thorax* very slender: *wings* entire, partially expanded during repose, of an uniform colour, mostly traversed with fine waved lines, varying from three to five in number, and the disc usually with a darker central tint: *legs* moderate; posterior *tibiæ* sometimes incrassated, with a fasciola of hairs within, sometimes spurless, at others with one or two pair; posterior *tarsi* sometimes very short, almost obsolete, at others rather long.

The neat insects of this genus have the posterior tibiæ in some measure resembling those of *Ptychopoda*, but the fan is less developed: they are generally destitute of spurs in the males, and the females have two or four, but the former sex never more than two: from the foregoing genus this may, however, be known by the superior elongation of the wings, which have generally from three to five transverse strigæ thereon, with the hinder margin usually clear.

A. Posterior tibiæ of the males without spurs, of the females with one pair at the apex.

Sp. 1. *osseata*. *Alis flavescentibus, obscurius undatis, puncto medio nigro, anticis costâ ferrugineâ.* (Exp. alar. 9—9½ lin.)

Ph. Ge. *purpurata*. Linné.—*Turton*(!)—Em. *purpurata*. *Steph. Catal. part ii. p. 149. No. 6698. note.*

Wings greenish, with the margin purplish; anterior with two broad purplish fasciæ, the first short, the second longer, beneath deep yellow with a purplish streak towards the apex: posterior yellow on both sides; beneath with a large purplish blotch.

Indicated by *Turton* to be indigenous: what the insect is I am not aware.

Ph. osseata. *Wien. Verz*.—*Pt. osseata*. *Steph. Catal. part ii. p. 150. No. 6707.*

Wings lutescent-white, glossy; all with a minute central black dot, and with several obscure pale-fuscous waved strigæ, two of which are placed anteriorly, and three towards the hinder margin, the second and third being the most distinct, and the fifth edged with a pale line; on the hinder margin is a row of minute elongate black dots; the anterior wings have the costa pale ferruginous.

It varies in being nearly destitute of the strigæ, and of the marginal row of black streaks:—this variety is the *Ph. subochreata*. *Steph. Catal. part ii. p. 150. No. 6708.*

Not uncommon in June at Coombe, Darent, and other woods within the metropolitan district.

Sp. 2. marginepunctata. *Alis albido-lutescentibus strigis undatis obscurioribus, puncto medio fusco, margineque postico nigro punctato.* (Exp. alar. 10 lin.)

Pt. marginepunctata. *Steph. Catal. part ii. p. 150. No. 6709.*

Wings ochreous, with five very obsolete fuscous waved strigæ more or less approximating, and all with a fuscous central dot, and a row of minute round black dots on the hinder margin.

Rather larger than the last, without the ferruginous tinge on the costa of the anterior wings, and with a distinct row of rounded black dots on the hinder margins of all the wings.

Taken near Brockenhurst in the New Forest: it may be only a variety of the foregoing; but as it does not occur near London, it would appear to be distinct.

Sp. 3. virgularia. *Alis pulverulentim cinereis, strigis duabus obliquis fimbriâque subnebulâ communi, saturatoribus.* (Exp. alar. 6—10 lin.)

Ge. virgularia. *Hübner?*—*Pt. virgularia*. *Steph. Catal. part ii. p. 151. No. 6715.*

Wings, at least the anterior, elongate, cinereous, very thickly pulverulent, the anterior with a slightly angulated indistinct darker striga before the middle, and a second more evident and common in the middle; the hinder margin fuscous, with small whitish clouds and very minute black dots; and on the extreme edge is an interrupted fine black line, and some rounded black dots at the base of the cilia.

Variable in size and in the intensity of its markings.

Common in hedges, gardens, woods, &c. near London; also at Dover, in Devonshire, &c. “Newcastle.”—*G. Wailes, Esq.*

Sp. 4. subsericeata. *Alis subsericeo-albidis tincturâ virescente, strigis quinque saturatoribus undulatis æquidistantibus (prima excepta) communibus.* (Exp. alar. 11 lin.)

Ph. subsericeata. *Haworth*.—Pt. subsericeata. *Steph. Catal. part ii. p. 151. No. 6716.*

Wings of a silken-white tinged with greenish, with five nearly æquidistant darker waved strigæ, the first somewhat remote.

At the base of the cilia is sometimes a row of fuscous dots, and in the centre of all the wings a single one of similar hue: the strigæ also vary a little in their relative distances from each other.

The only locality I know for this insect is the hedges in the vicinity of Darenth-wood, where I have frequently taken it in June. “Strand-on-the-green.”—*Rev. A. H. Matthews.*

Sp. 5. inornata. *Alis pallidè griseo-fuscescentibus, strigis tribus æquidistantibus saturatioribus evanescentibus, posticâ interdum obsolete geminatâ, ciliis immaculatis.* (Exp. alar. 1 unc. 2 lin.)

Ph. inornata. *Haworth*.—Pt. inornata. *Steph. Catal. part ii. p. 151. No. 6717.*

Wings pale griseous-brown, with a slightly greenish tinge; anterior with three pale evanescent darker strigæ; the first, towards the base, slightly flexuous; the second, in the middle, straight; the third behind the middle and slightly curved; on the hinder margin of the wings is a faint interrupted line; cilia immaculate: posterior wings with two darker strigæ: all with a black central dot, and with a few very remote fuscous atoms. In some examples all the wings have a slightly undulated pale striga towards the hinder margin.

Differs from *Ac. remutata* by having the wings less irrorated, the third striga not being flexuous and subangulated near the costa of the anterior wings, and the cilia being immaculate at the base.

This insect is also more frequent in Darenth-wood than in any other place within the metropolitan district: I have often taken it there in June. “Strand-on-the-green.”—*Rev. A. H. Matthews.*

Sp. 6. aversata. *Alis cinerascensibus aut rufescentibus fasciâ fuscâ strigâque marginali subinterruptâ punctisque ad basin ciliarem nigris.* (Exp. alar. 1 unc. 2—3 lin.)

Ph. Ge. aversata. *Linné*.—Pt. aversata. *Steph. Catal. part ii. p. 151. No. 6719.*

Wings cinerascens or reddish, with remote minute fuscous dots, and all with a dark fuscous central dot: anterior with a faint striga towards the base, and all with a broad fuscous fascia, placed somewhat behind the central dot, and slightly waved; behind this the wings are darker, and have sometimes a more or less distinct pale waved striga thereon; on the extreme edge is a fine interrupted blackish line, and at the base of the cilia a row of minute black dots.

Common in most of the woods round London in June. “Epping.”—*Mr. Doubleday.* “Alderley, Cheshire.”—*Rev. E. Stanley.*

Sp. 7. *remutata*. *Alis pallide flavescentibus aut cinerascentibus, strigis tribus æquidistantibus subundulatis fuscis, puncto centrali atro, margineque externo nigro-punctato.* (Exp. alar. 1 unc. 2—3 lin.)

Ph. Ge. *remutata*. Linné.—Pt. *remutata*. Steph. Catal. part ii. p. 151. No. 6718.

Wings pale yellowish or cinerascens, sometimes faintly tinted with green, and rather thickly irrorated with very minute fuscous dots; all with a small black central dot; the anterior with three fuscous strigæ, of which the first is slightly curved and a little angulated towards the costa; the second placed in general behind the central dot, somewhat curved: the third, towards the hinder margin, considerably waved, and flexuous towards the costa; the hinder margin with an interrupted deep-fuscous line, and the base of the cilia with a row of minute black dots: posterior wings with two strigæ, an interrupted marginal line, and spotted cilia.

Slightly variable: in some instances the strigæ are very robust, in others nearly evanescent; sometimes the base anterior to the first striga is of a deeper hue than the rest of the wings, at others the margin, and the latter has occasionally a faint waved striga.

Also abundant in all the metropolitan woods in June. “Newcastle.”—*G. Wailes, Esq.* “Epping.”—*Mr. Doubleday.* “Cramond, near Edinburgh.”—*Rev. W. Little.* “Alderley, Cheshire.”—*Rev. E. Stanley.*

Sp. 8. *fuliginata*. *Alis omnibus fuliginoso-fuscis, strigâ anticarum obsoletâ pone medium saturatiore.* (Exp. alar. 1 unc. 1—2 lin.)

Ph. *fuliginata*. Haworth.—Pt. *fuliginata*. Steph. Catal. part ii. p. 151. No. 6720.

All the wings of a smoky-brown, with an obsolete darker striga behind the middle of the anterior; the hinder margin slightly waved with pale fuscous, with its extreme edge having a faint interrupted blackish line.

Found in June near London.

B. Posterior tibiæ of males with one pair of spurs at the apex; of the females with a pair at the apex, and a second in the middle.

Sp. 9. *fumata*. *Alis cinerascentibus fusco confertissimè irroratis, strigis tribus aut quatuor obsoletissimis saturatioribus, margine postico impunctato.* (Exp. alar. 1 unc. 1—2 lin.)

Ge. *fumata*. Dale? MSS.—Pt. *fumata*. Steph. Catal. part ii. p. 151. No. 6721.

Wings cinerascens, very thickly irrorated throughout with minute fuscous atoms; anterior with an obsolete darker striga towards the base; a second near the middle; a third behind the middle; and a less distinct fourth one, with an ob-

scure pale wave beyond, near the hinder margin, the latter immaculate; cilia also with fuscous irrorations: posterior wings nearly similar. Female paler, with the transverse strigæ more distinct than in the male, especially the third from the base.

In some instances the two anterior strigæ are united into a single indistinct fascia.

Taken first in Scotland, afterwards in Cumberland and Westmoreland, in June. "Near Ashburton, Devon."—*Messrs. Chant and Bentley.*

C. Posterior tibiæ of the males without spurs; of the females with one pair at the apex, and a second in the middle.

Sp. 10. *lactata*. *Alis albidis, strigâ anticâ saturatiore, duabusque aliis communibus validioribus.* (Exp. alar. 1 unc. 1—2 lin.)

Ph. *lactata*. *Haworth.*—Pt. *lactata*. *Steph. Catal. part ii. p. 152. No. 6724.*

Wings whitish; the anterior with an oblique, nearly straight striga towards the base, a second slightly waved common one in the middle and a third, also common, more distinct, and very much waved, between the last and the hinder margin; and behind this, in fine specimens, another more or less distinct, composed of fuscous clouds, and on the hinder margin a row of very minute black dots.

Variable as to the position of the strigæ, and a little in colour: in some cases the two basal strigæ of the anterior wings are united towards the middle and form an X, in others the second and third strigæ only exist. These varieties form the Ph. *sublactata*, *Haworth.*—*Steph. Catal. l. c. No. 6725.* In some instances the hinder margin is free from strigæ or clouds; in others it is considerably clouded:—the posterior wings have always a central dot, but the anterior are frequently destitute thereof; and the row of black dots on the hinder margin is sometimes wanting.

Common in woods throughout the metropolitan district in June. "Epping."—*Mr. Doubleday.*

Sp. 11. *floslactata*. *Alis floris lactis colore, fusco minutum atomosis, strigis undulatis quatuor saturatioribus.* (Exp. alar. 1 unc.—1 unc. 1 lin.)

Ph. *floslactata*. *Haworth.*—Pt. *centrata*. *Steph. Catal. part ii. p. 152. No. 6726.*

Wings creamy-white, with minute remote fuscous atoms, and with four darker strigæ, disposed in pairs, the two first before the middle, the other two behind and considerably undulated: on the hinder margin is sometimes a row of minute black dots, but it is generally immaculate.

Smaller than the foregoing, of a different colour, and the strigæ dissimilarly placed.

Found in woods with the preceding species. "Newcastle."—*G Wailes, Esq.*

GENUS CCXXXVII.—PÆCILOPHASIA * *mili*.

Palpi very short, slender, remote, acute, sparingly clothed with short scales, triarticulate; the basal joint curved, attenuated; second subovate, short; terminal elongate-ovate: *maxillæ* long. *Antennæ* short, simple in both sexes, a little pubescent within in the males: *head* small; *forehead* slightly prominent: *eyes* large, globose: *thorax* slender: *wings* somewhat expanded during repose, the hinder margins entire; of the anterior nearly straight, of the posterior a little emarginated towards the costa; all bordered with a dark sinuous fimbria upon a white ground, the disc without the usual transverse striga or a central dot: *abdomen* slender and carinated above in the males, rather stout and acute in the females: *legs* rather short; posterior *tibiæ* incrassated and slightly ciliated in the males, with two pair of short spurs; more slender, with longer spurs, in the females: posterior *tarsi* slightly abbreviated in the males.

The posterior *tibiæ* are also slightly thickened in this genus, but, unlike those of the two foregoing, they possess two pair of short spurs each in both sexes: their wings are of a pale hue, with a sinuated and interrupted dark border, excepting on the costa of the posterior; but they do not possess either strigæ or a central dot, so usual among the Geometridæ. One species only is known, which is extremely variable; its affinity to the genus *Abraxas* I am at a loss to conceive.

Sp. 1. *marginata*. *Alis omnibus albis, limbo nigro sinuato*. (Exp. alar. 1 unc.—1 unc. 1 lin.)

Ph. Ge. *marginata*. *Linné*.—*Don*. ix. *pl.* 293. *f.* 2.—*Pt. marginata*. *Steph. Catal. part ii. p.* 151. *No.* 6731.

Head, thorax, and abdomen black; base of the anterior wings with a broad oval black spot, and behind the middle of the costa a second smaller one, nearly united to the first; on the hinder margin is also a broad sinuated black border common to all the wings, and the cilia are likewise black; in the centre of the wings is generally a common interrupted black fascia.

* Ποικίλος, variegatus; φασίς, apparitio.

The black fascia on the wings is frequently wanting, and an irregular patch is frequently attached to the second ovate spot of the anterior wings on the disc: in some instances there is a row of whitish dots, or a white striga, between the dark margin and the cilia of the anterior wings, and the posterior wings are occasionally immaculate. In some cases the central fascia is continuous, and I possess a specimen with *one of* the anterior wings nearly all black, and *one of* the posterior with an abbreviated fascia on the inner edge, the opposite one being without, and the other anterior wing not usually dark.

Extremely abundant in woods within the metropolitan district from May to August. "York."—*W. C. Hewitson, Esq.* "Cummersdale, Tarn Wadling, &c."—*T. C. Heysham, Esq.* "Weston-on-the-green."—*Rev. A. H. Matthews.* "Raehills."—*Rev. W. Little.* "Epping."—*Mr. Doubleday.* "Swaffham Prior."—*Rev. L. Jenyns.*

GENUS CCXXXVIII.—CHLORISSA * *mili*.

Palpi slender, extending beyond the forehead, approximating at the apex, sparingly clothed with short scales, the terminal joint exposed, sometimes very slender and acuminate; triarticulate; basal joint very short; second considerably elongated; terminal linear-acute, sometimes ovate, acute: *maxillæ* rather long. *Antennæ* short, rather stout, and furnished with long cilia nearly to the apex, or with shorter cilia their whole length in the males, simple and slightly pubescent within in the females: *head* broad: *eyes* globose: *thorax* slender: *wings* entire, placed in a triangle during repose; the anterior with the apex acute and their hinder margin slightly rounded, the posterior with the middle of the same margin produced into an angle; colour green, with two pale transverse strigæ: *body* slender; stouter and more acute in the females: *legs* variable; posterior *tibiæ* in the males more or less incrassated, furnished with one or two pair of spurs: posterior *tarsi* sometimes abbreviated.

Larva smooth, elongated; head bifid: pupa enveloped in a fine web.

From the Hipparchi and other green species of this family, the present genus may be distinguished by having the posterior wings distinctly angulated, and the antennæ of the males either slightly ciliated their entire length, or subpectinated nearly to the apex: the posterior *tibiæ* also offer another point of distinction.

A. *Posterior tibiæ* of the males with one pair of spurs at the apex; of the females with one pair at the apex, and a second in the middle.

* Χλωρίζω, vireo.

Sp. 1. *viridata*. *Alis viridibus, anticis strigâ obsoletissimâ ante, alterâque pone, medium communi albicantibus, ciliis pallidis.* (Exp. alar. 10—11 lin.)

Ph. Ge. *viridata*. Linné.—Hip. *viridatus*. *Steph. Catal. part ii. p. 122. No. 6483. Albin, pl. xlviii. f. 80. a—c.?*

Wings bluish-green; the anterior with a very obscure slender pale striga towards the base, and a second distinct common one behind the middle, very slightly waved; cilia pale, with the base greenish.

Caterpillar greenish, with red dorsal spots: it feeds on the oak, hazel, white-thorn, &c.:—the imago appears about the middle of June.

Formerly abundant near Peckham, but of late years this species has only occurred in the New Forest, whence I possess very finely coloured examples, taken in June, 1829. “Baron-wood.”—*T. C. Heysham, Esq.* “Epping.”—*Mr. Doubleday.*

Sp. 2. *cloraria?* *Alis ciliisque viridibus, strigâ communi albidâ.* (Exp. alar. 9 lin.)

Ge. *clorarius*. *Hübner?* Hip. *cloraria*. *Steph. Catal. part ii. p. 122. No. 6484.*

Wings pale green, all with a single whitish striga, placed behind the middle; cilia entirely green, longer than in the preceding insect.

I possess a specimen which I obtained from Mr. Francillon's cabinet: it is evidently distinct from the foregoing species.

Sp. 3. *Thymiaria*. *Alis saturate viridibus, strigâ flexuosâ ante, alterâque communi pone medium albicantibus, ciliis nigro maculatis.* (Exp. alar. 1 unc.—1 unc. 1—2 lin.)

Ph. Ge. *Thymiaria*. Linné.—Ph. *vernaria*. Don. ix. pl. 310.—Pt. *Thymiaria*. *Steph. Catal. part ii. p. 153. No. 6734.*

Wings dark green; the anterior with a flexuous whitish striga before the middle, and a second, common to all the wings, behind the middle, somewhat angulated in the posterior wings: on the disc is an obsolete dusky lunule; and the cilia are whitish, spotted with black.

Variable in size: I have a specimen which is scarcely 9 lines across, of a dirty green, with pale spots on the cilia. I supposed it was distinct: it is the Ge. *vernaria* of *Esper*.—Pt. *vernaria*. *Steph. Catal. l. c. No. 6735.*

Caterpillar green, with darker clouds; it feeds on the oak, whitethorn, &c.:—the imago is found at the end of June.

Very abundant in all the woods within the metropolitan district in June: also found in my own garden. “Epping.”—*Mr. Doubleday.* “Weston-on-the-green.”—*Rev. A. H. Matthews.*

B. *Posterior tibiæ* of both sexes with a pair of spurs at the apex, and another in the middle.

Sp. 4. *putataria*. *Alis dilute viridibus, strigis duabus obsoletis communibus albicantibus, lituræque obsoletissimâ interjecto.* (Exp. alar. 10—11 lin.)

Ph. Ge. *putataria*. Linné.—Pt. *putataria*. Steph. Catal. part ii. p. 153. No. 6732.

Wings pale green, with two common obsolete whitish strigæ, the space between slightly darker; the anterior incurved, the posterior a little undulated and oblique; on the disc between the strigæ is an obscure dark green streak: cilia greenish.

Old specimens become nearly of a clear white, with the strigæ less distinct.

Caterpillar green, with small red spots: it feeds on the birch, hornbeam, &c.:—the imago is produced towards the end of May, and frequents woody places.

Abundant near London: I have found specimens in my own garden. “Scarborough.”—*W. Bean, Esq.* “Epping.”—*Mr. Doubleday.* “Weston-on-the-green.”—*Rev. A. H. Matthews.* “Meldon-park and Keswick.”—*G. Wailes, Esq.* “Baron-wood.”—*T. C. Heysham, Esq.*

GENUS CCXXXIX.—TIMANDRA, *Duponchel.*

Pulpi moderate, porrected beyond the head, slightly squamous; the terminal joint very slender and acuminate, triarticulate; the two basal joints of nearly equal length, both slightly curved, terminal minute, ovate: *maxillæ* rather long. *Antennæ* rather short, slightly pectinated to the apex in the males, simple in the females: *head* short, broad: *eyes* globose: *thorax* slender: *wings* entire, slightly expanded during repose; anterior with the apex very acute, the hinder margins slightly produced, and of the posterior projecting to an acute angle; all traversed by a diagonal fascia, arising near the apex of the costa of one wing and extending to the same part of that on the opposite side: *body* rather long and slender, tufted and obtuse in the males, acute in the females: *posterior tibiæ* in the males incrassated, compressed, and spurless; in the females slender and furnished with four spurs. Larva not tuberculated, clavate anteriorly: pupa angular, placed in a slight web.

As *Bradyepetes amataria* evidently associates better with a preceding group of the Geometridæ than with this genus, with which it is placed by Duponchel, it became necessary to employ a new term for the one that was detached; and as I had used the above for the insect already described, in allusion to its habits, I have here employed the one proposed by Duponchel for the entire genus, in preference to the more correct method of giving

two new names, which otherwise must have been the case. With the exception of the insect just mentioned, the *Timandræ* may be known from all the other *Geometridæ* by the fascia which traverses the wings diagonally, and by the angular posterior wings; and from *Bradyepetes* the different structure of the antennæ and posterior tarsi removes it.

Sp. 1. *imitaria*. *Alis rufo-flavis, striga incurvâ ante, duabusque communibus pone medium fuscis.* (Exp. alar. 1 unc. 1—2 lin.)

Ge. *imitaria*. *Hübner*.—Mac. *imitaria*. *Steph. Catal. part ii. p. 154. No. 6737.*

Wings pale reddish-yellow, or ochraceous; anterior with an incurved flexuous fuscous striga near the base, and a second common one towards the hinder margin, between which is a very oblique nearly straight broad one clouded exteriorly with fuscous, arising on the costa of the anterior wings near the third striga, and traversing all the wings, passing behind the ordinary black dot on the anterior wings and before that of the posterior, which last is generally very conspicuous: on the hinder margin of the wings is a continued line: cilia rufescent.

Not uncommon at Darenth and near Ripley; also in the New Forest in June; also frequent in my own garden. "Epping."—*Mr. Doubleday*. "Weston-on-the green."—*Rev. A. H. Matthews*. "Alderley, Cheshire."—*Rev. E. Stanley*.

Sp. 2. *variegata*. *Alis albidis, cinereo-atomosis, strigis duabus obsoletissimis fasciâque obliquâ communi fuscâ, margine postico strigâ tenuissimâ subinterruptâ.* (Exp. alar. 1 unc. 1—2 lin.)

Ph. *variegata*. *Scopoli*.—Ma. *variegata*. *Steph. Catal. part ii. p. 154. No. 6738.*

Wings whitish, with cinereous atoms; the anterior with two very obsolete strigæ, one towards the base, the other near the hinder margin, common to all the wings, and indented; behind this the posterior margin is rather dark, with a waved pale striga, and between the strigæ is an oblique fasciæform one extending from a little beyond the middle of the costa of the anterior wings to the inner margin of the posterior, passing behind the central dot of the former, and through that of the latter: in the hinder margin of all the wings is a delicate slightly interrupted fuscous line: cilia cinereous, immaculate.

Very rare: my specimens were taken in a lane near Darenth in June; the insect occurs, however, elsewhere. "Baron-wood and Rose Castle."—*T. C. Heysham, Esq.*

†Sp. 3. *emutaria*. *Alis pallidè flavo-rubrescentibus, fasciâ mediâ obscuriore, omnibus puncto medio lineâque punctatâ nigris.* (Exp. alar. 1 unc.)

Ge. *emutaria*. *Hübner*.—Ma. *emutaria*. *Steph. Catal. part ii. p. 154. No. 6739.*

Wings pale yellowish-red, minutely irrorated with fuscous, with an oblique central obscurely red fascia, a black dot on the disc, and a row of minute black dots on the hinder margin: cilia reddish.

Found in the New Forest, Hants, near Lyndhurst, in July, 1823.

† Sp. 4. subroseata. *Alis roseo-albidis, atomis numerosis minutissimis fuscis, strigâque obliquâ abbreviatâ communi fuscâ, posticis subangulatis.* (Exp. alar. 1 unc.)

Ph. subroseata. *Haworth.*—Pt. subroseata. *Steph. Catal. part ii. p. 152. No. 6730.*

Wings rosy-white, the anterior with a cinereous striga reaching obliquely from the apex to the middle of the inner margin, and traversing to the inner edge of the posterior wings; behind this on the anterior wings are about five very minute black dots placed obliquely and not approximating to the margins; posterior wings with one or more darker strigæ towards the margin.

Taken in Norfolk at the end of July; also in the New Forest.
“Netley.”—*Rev. F. W. Hope.*

GENUS CCXL.—MACARIA, *Curtis.*

Palpi short, slightly projecting, obtuse, clothed with scales, elongated beneath, triarticulate; basal joint nearly as long as the other two, slightly curved, second elongate-ovate, terminal small, subovate: *maxillæ* short. *Antennæ* long, subcrenated in the males, pubescent within, less robust in the females: *head* small: *eyes* globose: *thorax* slender: *wings* entire, horizontally extended during repose; anterior with the hinder margin slightly excised, posterior angulated; sometimes all dentate: *body* short, slender in the males: posterior tibiæ somewhat incrassated in the males, with a fascicle of hairs at the base, which is frequently concealed. Larva not tuberculated, somewhat attenuated anteriorly; head small, cordiform: pupa angular, enveloped in a web among leaves.

This genus corresponds nearly with the genus *Philobia* of *Dupouchel*; but the above name having been first published is here retained, as the type belongs thereto: from the preceding genus they differ in having the anterior wings slightly excised towards the apex of the hinder margin, in wanting the oblique striga, as well as by other less evident characters.

Sp. 1. notata. *Alis albidis fusco irroratis, strigis tribus maculâque apicis sub-fuscis, fasciculo postico punctorum atrorum.* (Exp. alar. 1 unc. 1—3 lin.)

Ph. Ge. notata. *Linné.*—Ma. notata. *Steph. Catal. part ii. p. 154. No. 6740.*

Wings whitish, more or less sprinkled with fuscous atoms; all with three obscure fuscous strigæ; the anterior with three small and one large rufescent spots on the costa, and towards the hinder margin a rounded spot, divided by the pale nervures into four, one interior, elongate, and three exterior placed transversely; the notch of the hinder margin has a red-brown lunule; posterior wings with a central fuscous dot, and the space between the two exterior strigæ somewhat rufescent; hinder margin with a fine reddish striga.

Caterpillar green, the sides yellowish or brown: it feeds on willow, oak, &c.:—the imago is found in the beginning of June.

Rather uncommon; found at Darent, Birch, and Coombe Woods; also near Dover. “Kirk Andrews-upon-Eden.”—*T. C. Heysham, Esq.*

Sp. 2. *alternata*. *Alis atomoso-cinereis, fusco strigatis, anticis maculis quatuor costalibus lunulâ apicis punctisque posticâ atris.* (Exp. alar. 1 unc. 1—2 lin.)

Ge. *alternata*. *Wien. Verz.*—Ma. *alternata*. *Steph. Catal. part ii. p. 154. No. 6741.*

Wings cinereous, thickly irrorated and marked especially towards the hinder margin, with elongate ashy streaks, and indistinct fuscous strigæ, the space between rather paler; on the costa of the anterior wings are four distinct spots, the posterior one being elongate, and in a line with its apex is a patch of minute fuscous spots: on the notch of the hinder margin is a fuscous lunule: posterior wings, with the hinder margin, darker than the base, and with the central dot rather conspicuous.

Rare: taken at Darent-wood in June; also I believe at Coombe.

† Sp. 3. *subrufata*. *Alis rufescentibus, strigis gracilibus saturatoribus.* (Exp. alar. 1 unc. 3 lin.)

Ph. *subrufata*. *Haworth.*—Ma? *subrufata*. *Steph. Catal. part ii. p. 154. No. 6742.*

Wings rufescent, with slender darker strigæ. Mr. Haworth adds—“The edges of the acute upper (anterior) wings seem to have been dentated or angled; but the specimen from whence the above description was made is too much injured to be certain of it.”

In Mr. Haworth's collection, from that of Mr. Francillon.

Sp. 4. *litrata*. *Alis cinerascentibus, strigis tribus communibus subfuscis, ante fasciam communem fulvicantem.* (Exp. alar. 1 unc. 3—5 lin.)

Ph. Ge. *litrata*. *Linné.*—Ma. *litrata*. *Curtis, iii. pl. 132.*—*Steph. Catal. part ii. p. 154. No. 6743.*

Wings cinereous, with minute fuscous irrorations; the anterior with four spots on the costa, the three basal of which are dusky, and give rise to a similar number of rather faint strigæ common to all the wings, behind the last of

which is a common bright fulvous fascia, at the origin of which, on the costa of the anterior wings, is a red-brown—or the fourth—spot: hinder margin cinereous, with a faint dusky line on the extreme edge.

Not uncommon in June in a fir plantation near Brockenhurst, in the New Forest: I possess an example also from Otford in Kent; and it has been taken near Westerham, in the same county. “Meldon-park and Gibside.”—*G. Wailes, Esq.* “Near Carlisle.”—*T. C. Heysham, Esq.*

Sp. 5. præatomata. *Alis albido-cinereis atomis numerosis fuscescentibus tectis, strigis subtribus obsoletissimis limboque saturatoribus.* (Exp. alar. 1 unc. 3 lin.)

Ph. præatomata. *Haworth.*—Ma. præatomata. *Steph. Catal. part ii. p. 155. No. 6744.*

Wings whitish-ash, thickly covered with numerous dusky atoms, with three obsolete common slightly curved equidistant strigæ, and the hinder margin darker: on the costa, towards the apex, is a fuscescent spot, and on the hinder margin a brown lunule: the posterior wings are rather sharply angled.

From Mr. Francillon's collection: of the locality I am not aware.

Sp. 6. unipunctata. PLATE 31. f. 3.—*Alis rufescentibus, angulato-dentatis, strigis tribus obsoletis, punctoque apicem versus albo.* (Exp. alar. 1 unc. 4 lin.)

Ph. unipunctata. *Haworth.*—Ma. unipunctata.—*Steph. Catal. part ii. p. 155. No. 6745.*

Wings reddish, with a few scattered dusky atoms, the anterior with three strigæ, the first incurved, the second nearly straight, in the middle, the third behind the middle, very flexuous; the hinder margin rather dusky-red, with a round white spot towards the costa near the apex; posterior wings with two strigæ; all with the hinder margins dentate.

Also from Mr. Francillon's collection, and its locality unknown.

GENUS CCXLI.—ANIA *mili*.

Palpi short, slender, scarcely corrected beyond the forehead, sparingly clothed with short scales, acute, triarticulate; basal joint a little incrassated, slight, second rather shorter and curved, terminal elongate-ovate: *maxillæ* short. *Antennæ* subserrated and ciliated in the males; slender, simple, and slightly pubescent in the females: *head* small: *eyes* subglobose: *thorax* slender: *wings* expanded horizontally during repose; anterior acute, with their hinder margin produced in the middle; posterior with the hinder margin angulated and sinuous: *body* rather long and slender in the males, short and carinated in the females: posterior *tibiæ* of the males incrassated and spurless, with short tarsi; in the

females slender, with a pair of spurs at the apex. Larva slightly pilose, not tuberculated, attenuated anteriorly: pupa enclosed in a web amongst leaves.

The tenuity of the wings of this genus—which is a portion of the genus *Epione* of Duponchel—with their sinuous outline and comparative brevity, as well as the surface having distinct strigæ with a conspicuous central dot or point, serves to distinguish it from the preceding, with which I have associated it in my Catalogue: the larva is very different to that of the *Macariæ*.

Sp. 1. *limbata*. *Alis rufo-pallidis ferrugineo reticulatis, fimbriâque latâ fusco-ferrugineâ.* (Exp. alar. 1 unc. 1 lin.)

Ph. *limbata*. *Haworth.*—Ma. *limbata*. *Steph. Catal. part ii. p. 155. No. 6746.*

Wings pale rufous, reticulated with ferruginous, with a broad rusty-brown hinder margin.

Found in Scotland: also formerly in Mr. Francillon's collection.

Sp. 2. *emarginata*. *Alis lutescentibus aut rufo-fulvis, lineis tribus fuscis punctoque medio atro.* (Exp. alar. 10—11 lin.)

Ph. Ge. *emarginata*. *Linné.*—Ma. *emarginata*. *Steph. Catal. part ii. p. 155. No. 6747.*—Ph. 4-*punctata*. *Don. xiv. pl. 493. f. 3. ♂.*—Ph. *rumigerata*. *Don. xiv. pl. 493. f. 2. ♀.*

Wings lutescent, with a few scattered fuscous atoms and a central black dot; the anterior with an incurved striga a little before the middle, and a repanded common one behind the middle, between which is frequently a common fuscous fascia, especially in the females; on the hinder margin is a third striga, which is also repanded. Female with the wings more repanded on the hinder margin, which is usually suffused, and the wings of a more rufescent cast.

Caterpillar ochreous-yellow, with a brown dorsal line: it feeds on the bindweed (*Convolvulus arvensis*):—the imago appears towards the end of July.

Rather abundant in hedges and by wood sides within the metropolitan district; the female is, however, rare. “Epping.”—*Mr. Doubleday.*

GENUS CCXLII.—ENNOMOS, *Treitschke.*

Palpi rather long, conspicuous, stout, densely clothed with compact scales, with the apical joint exposed and conical, triarticulate; basal joint half as long as the second, which is rather slender, slightly attenuated and obliquely truncate at the apex, terminal elongate, subovate, acuminate: *maxillæ* elongate. *Antennæ* simple in both sexes, slightly pubescent in the males, very slender in the females: *head* rather broad; *forehead* prominent, rounded:

eyes globose: *thorax* moderately slender: *wings* expanded during repose; anterior elongate, with a deep notch towards the apex of the hinder margin; posterior entire, rounded: *body* rather stout in both sexes, acute and slightly tufted: *legs* stout; *posterior tibiæ* incrassated, with two pair of long spurs. Larva with a dorsal protuberance, the posterior legs rather short.

Duponchel has given the name *Aventia* to this genus, but as it is the type of the genus *Ennomos* of Treitschke, I have adopted this latter name in preference to the new one proposed by Duponchel:—the genus is evidently very distinct, and may be known from all the preceding by the form and texture of the wings, the long conspicuous palpi, simple antennæ, slightly robust body, &c., and sublacertine larva.

Sp. 1. *flexula*. *Alis griseo-cinereis, anticis strigis duabus angulatis albidis fusco adnatis, punctisque duobus interjectis.* (Exp. alar. 1 unc. 3—4 lin.)

Ph. *flexula*. *Fabricius*.—En. *flexula*. *Steph. Catal. part ii. p. 155. No. 6748.*

Wings griseous-ash, thickly irrorated with fuscous, the anterior pale at the base, with a pale striga, bordered with fuscous, before the middle, and angulated towards the costa; and a second striga of similar colours behind the middle, also angulated near the costa; between these are two fuscous dots, placed transversely; behind the posterior striga the colour is darker, and in this is an obsolete pale flexuous striga; cilia umbre-coloured: posterior wings with a pale striga behind the middle, edged with fuscous, with an obscure fuscous spot between it and the base, an obsolete pale striga towards the hinder margin, and a row of minute black dots.

Caterpillar greenish, with the neck, the dorsal protuberance, tail, head, and legs reddish: it feeds on lichens:—the imago appears about the middle or end of July.

Not common; found in woods within the metropolitan district: one specimen taken at Ripley on the 3d instant. “Epping.”—*Mr. Doubleday*. “Weston-on-the-green.”—*Rev. A. H. Matthews*.

APPENDIX.

- Page 3. *EUPLEXIA lucipara*. "Meldon Park."—*G. Wailes, Esq.* "Prior Rigg, June."—*T. C. Heysham, Esq.*
- Page 5. *HAMA testacea*. "Newcastle."—*G. Wailes, Esq.*
- Page 5. *HAMA basilinea*. "Meldon Park."—*G. Wailes, Esq.*
- Page 7. *APAMEA nictitans*. "Raehills, Dumfries-shire, common."—*Rev. W. Little.*
- Page 8. *APAMEA didyma*. "Tynemouth."—*G. Wailes, Esq.* "Little Orton."—*T. C. Heysham, Esq.*
- Page 9. *APAMEA oculea*. "Newcastle."—*G. Wailes, Esq.*
- Page 11. *APAMEA ophiogramma*. In my own garden, on 10th instant, four specimens.
- Page 12. *MIANA literosa*. "Tynemouth, not uncommon."—*G. Wailes, Esq.*
- Page 12. *MIANA strigilis*. "Little Orton."—*T. C. Heysham, Esq.*
- Page 13. *MIANA latuncula*. "Near Edinburgh."—*Rev. W. Little.* "Little Orton."—*T. C. Heysham, Esq.*
- Page 14. *MIANA rufuncula*. "Raehills."—*Rev. W. Little.* "Near Drumburgh."—*T. C. Heysham, Esq.*
- Page 15. *MIANA fasciuncula*. "Tynemouth, abundant."—*G. Wailes, Esq.*
- Page 19. *SCOTOPIILA porphyrea*. "Heaths, Meldon Park."—*G. Wailes, Esq.* "Raehills."—*Rev. W. Little.* "Cobble Hall."—*T. C. Heysham, Esq.*
- Page 19. *ACHATIA piniperda*. "Raehills."—*Rev. W. Little.* "Newby Cross, Orton, &c."—*T. C. Heysham, Esq.*
- Page 24. *MISELIA Oxyacantha*. "Keswick."—*G. Wailes, Esq.*
- Page 25. *MISELIA Aprilina*. "Raehills."—*Rev. W. Little.* "A single specimen at Meldon Park, in Oct. 1829."—*G. Wailes, Esq.* "Rose Castle."—*T. C. Heysham, Esq.*
- Page 28. *POLIA bimaculosa*. "Newcastle, Keswick, &c."—*G. Wailes, Esq.*
- Page 30. *POLIA tincta*. I reared two specimens from pupæ, on the 7th June last, found at Coombe Wood.
- Page 31. *POLIA herbida*. "Baron Wood, 7th July, 1831."—*T. C. Heysham, Esq.*

- Page 67. *XANTHIA croceago*. This has lately been erected into a genus by the name *LAMPETIA*, which cannot stand, having been already *twice* employed.
- Page 69. *GORTYNA micacea*. "Cummersdale."—*T. C. Heysham, Esq.*
- Page 73. *LEUCANIA Comma*. "Newcastle."—*G. Wailes, Esq.*
- Page 75. *LEUCANIA impura*. "Newcastle, Meldon Park, &c. common."—*G. Wailes, Esq.* "Little Orton, &c."—*T. C. Heysham, Esq.*
- Page 78. *LEUCANIA pygmina*. "A pair at Gibside, 16th Sept. 1830."—*G. Wailes, Esq.*
- Page 80. *LEUCANIA pudorina*. "Cardew Mire."—*T. C. Heysham, Esq.*
- Page 84. *PHLOGOPHORA meticulosa*. "Raehills, rare."—*Rev. W. Little.* "Meldon Park, Keswick, &c. common."—*G. Wailes, Esq.*
- Page 87. *CUCULLIA Umbratica*. "Newcastle, Meldon Park, not uncommon."—*G. Wailes, Esq.*
- Page 100. *PLUSIA Iota*. "Raehills, not rare."—*Rev. W. Little.* "Meldon Park."—*G. Wailes, Esq.* "Rockcliff, Durdar, &c."—*T. C. Heysham, Esq.*
- Page 101. *PLUSIA percontationis*. "Meldon Park."—*G. Wailes, Esq.*
- Page 102. *PLUSIA interrogationis*. "Raehills, not rare."—*Rev. W. Little.*
- Page 103. *PLUSIA gamma*. "Raehills."—*Rev. W. Little.* "Meldon Park, &c. very abundant."—*G. Wailes, Esq.*
- Page 105. *PLUSIA chrysitis*. "Raehills, rare."—*Rev. W. Little.* "Newcastle, Meldon Park, &c. not rare."—*G. Wailes, Esq.* "York."—*W. C. Hewitson, Esq.*
- Page 107. *PLUSIA Festucae*. "Meadows near Prior Rigg."—*T. C. Heysham, Esq.*
- Page 111. *ANARTA Myrtilli*. "Very abundant on heaths near Newcastle."—*G. Wailes, Esq.*—"Drumburgh, Orton, &c."—*T. C. Heysham, Esq.*
- Page 111. † *ANARTA cordigera*. It appears that this species is indigenous.
- Page 111. † *ANARTA Vidua. Alis anticis cinereis, nigro maculatis, posticis nigris basi dilutioribus, fimbriis albis.*
- No. *Vidua. Hübner.*—No. *pl. 86. f. 403.*—An. *vidua. Curtis Guide (!).* Anterior wings cinereous, spotted with black; posterior black, with the base dusky, cilia white. Recorded as British in the work last quoted: I have never seen a specimen.
- Page 112. *ANARTA? Heliaca*. The name *Gymnopa* cannot be employed for this insect; Meigen having recently used it. "Gibside, not uncommon."—*G. Wailes, Esq.* "Near Jedburgh, Roxburghshire."—*Rev. W. Little.*
- Page 119. *ERASTRIA fuscula.*—*Acosmetia fuscula.*—*Curtis, viii. pl. 356.*
- Page 129. *MORMO Maura*. "Newcastle, Meldon Park, Keswick, Rye House, Herts, &c."—*G. Wailes, Esq.*
- Page 131. *CATOCALA Fraxini*. "Near Deal, in September, 1828; and the larva in the following year."—*Miss Harvey.*

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- Page 147. BUPALUS Piniarius. "Gibside, near Newcastle."—*W. C. Hewitson, Esq.*
- Page 149. FIDONIA carbonaria. "Neal House."—*T. C. Heysham, Esq.*
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- Page 167. GEOMETRA illunaria. "Weston-on-the-green."—*Rev. A. H. Matthews.*
- Page 168. GEOMETRA juliaria. "Upperley and Dalston-Vale, July, 1831."—*T. C. Heysham, Esq.*
- Page 171. GEOMETRA illustraria. "I have bred this from the larva off the aspen."—*Mr. Doubleday.*
- Page 174. OURAPTERYX Sambucaria. "Sparingly in most of the woods in the vicinity of Carlisle."—*T. C. Heysham, Esq.*
- Page 179. HEMITHEA vernaria. "Epping."—*Mr. Doubleday.*
- Page 181. CLEORA Lichenaria. "Weston-on-the-green."—*Rev. A. H. Matthews.*
- Page 182. CLEORA teneraria. "Baron Wood, 14th July, 1831."—*T. C. Heysham, Esq.*

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- Page 301. *EMMELESIA candida*. "Cummersdale."—*T. C. Heysham, Esq.*

Note.—Upon producing this leaf at the Publisher's (after the 7th August next) the remainder of the Appendix and the Index, with sheet H of *Mandibulata*, will be delivered to the Subscribers without charge.

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NOCTUIDÆ.—GEOMETRIDÆ.

Having at length, though imperfectly, detailed some of the essential characters of the indigenous genera of Noctuidæ and Geometridæ, so far as opportunities of investigating the species have been afforded me, I shall endeavour to draw up a brief artificial tabular view thereof from external, *chiefly secondary*, characters, previously calling attention to the note at the foot of page 5, vol. i., and to the general remarks upon the extreme difficulty (acknowledged by all writers) of discriminating the genera of Noctuidæ from the examination of the perfect insects in my observations upon the family, vol. ii. p. 101; and I may add, that as the tabular views of the genera are merely subsidiary, and as in some of the genera the species are rather discordant, such genera are referred to twice in the subsequent tables; and characters depending upon sexual distinction I have as far as possible avoided.

NOCTUIDÆ.

| | |
|---|--------------------|
| <i>Corpus</i> plus minusve depressum. | |
| <i>Alæ anteriores</i> margine postico integro. | |
| <i>Thorax</i> haud cristatus: (<i>alæ</i> incumbentæ.) | |
| <i>Palpi</i> recurvi: . . . | 101. PYROPHILA. |
| haud recurvi. | |
| <i>Alis anticis</i> tristigmatiferis: . . . | 91. AGROTIS. |
| bistigmatiferis: . . . | 86. TRIPHÆNA. |
| <i>Thorax</i> subcristatus: (<i>alæ</i> deflexæ.) | |
| <i>Palpi</i> elongati, porrecti, rostriformes: . . . | 134. XANTHOLEUCA. |
| haud elongati, subrecurvi, haud rostriformes. | |
| <i>Alis anticis</i> angustis, nitidis, viridibus: . . . | 117. ACTEBIA. |
| obscuris, lignicoloribus: . . . | 104. XYLINA. |
| sublatis, <i>thorace</i> lanigero: . . . | 99. GLÆA. A. B. a. |
| <i>Alæ anteriores</i> margine postico crenato, aut dentato. | |
| <i>Thorax</i> haud cristatus: (<i>alæ</i> incumbentæ:) | 100. AMPHIPYRA. |
| plus minusve cristatus. | |
| <i>Alis anticis</i> crenatis (incumbentibus). | |
| <i>Palpi</i> elongati, recurvi, (<i>thorace</i> valdè cristato:) | 102. NÆNIA. |
| breves, (<i>thorace</i> subcristato.) | |
| <i>Thorax</i> distinctè quadratus; posticè lobatus: . . . | 105. CALOCAMPA. |
| transversus, haud lobatus: . . . | 99. GLÆA. B. b. |
| <i>Alis anticis</i> emarginato-dentatis (deflexis): . . . | 128. SCOLIOPTERYX. |
| subemarginatis: . . . | 127. ERIOPUS. |
| <i>Corpus</i> haud depressum: (<i>alis</i> plerumque deflexis.) | |
| <i>Alæ anteriores</i> margine postico plus minusve denticulato; posteriores integres. | |
| <i>Alis anticis</i> (insecto sedente) longitudinalitè plicatis. | |
| subcrenatis: . . . | 110. EUPLEXIA. |
| eroso-dentatis: . . . | 139. PHLOGOPHORA. |

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| <i>Alis anticis</i> haud plicatis. | |
| <i>Thorax</i> cristatus. <i>Palpi</i> ascendentes. | |
| <i>Alis anticis</i> acutis, plus minus metallo notatis : haud metallo notatis. | 146. PLUSIA. |
| <i>Thorace</i> cristâ bifidâ : (alæ incumbentes :) | 103. DYPTERYGIA. |
| (alæ deflexæ viridi fasciatæ :) | 145. CALOTÆNIA. |
| simplice : (alæ deflexæ :) | 107. RHIZOLITHA. |
| <i>Palpi</i> breves, porrecti, vix ascendentes : articulo ultimo valdè distincto. | |
| <i>Thorace</i> cristâ bifidâ. <i>Alis</i> latis, vix crenatis : | 118. TRACHEA. |
| elongato-lanceolatis : | 121. POLIA. |
| simplice : | 111. HAMA. |
| <i>Palpi</i> articulo ultimo ferè abscondito : | 109. MAMESTRA. |
| <i>Thorax</i> subcristato : (antennis masculis pectinatis.) | |
| <i>Maxillæ</i> breves : | 108. HELIOPHOBUS. |
| elongati : | 89. CHARÆAS. A. |
| <i>Alæ</i> omnes subangustæ, margine postico plus minus denticulato aut crenato : (deflexæ.) | |
| <i>Thorace</i> cristâ simplice : vix cucullatâ. | |
| <i>Alis anticis</i> margine postico rotundato. | |
| <i>Antennis</i> in utroque sexû pectinatis : | 119. VALERIA. |
| subseriatis aut simplicibus : | 120. MISELIA. |
| <i>Alis anticis</i> margine postico subtruncato : | 106. XYLOPHASIA. |
| <i>Thorace</i> cristâ simplice : anticè cucullatâ. | |
| <i>Alis anticis</i> margine postico obsolete crenato, subtruncato : | 136. NONAGRIA. |
| subfalcato : | 141. CHARICLEA. |
| dentatis, acutis : | 140. CUCULLIA. A. |
| <i>Thorace</i> cristâ bifidâ. | |
| <i>Palpi</i> elongati, ascendentes, subgraciles : | 144. ABRISTOLA. |
| mediocres, porrecti, subclavati : | 112. APAMEA. |
| <i>Alæ</i> omnes latæ, margine postico subprofundè denticulato, (incumbentæ). | |
| <i>Alis</i> concoloribus, obscuris : | 158. MORMO. |
| discoloribus, <i>posticis</i> pulchris, fimbriâ atrâ : | 159. CATOCALA. |
| <i>Alæ</i> integres (plerumque deflexæ) : <i>corpus</i> plus minus robustum. | |
| <i>Thorace</i> cristâ simplice anticè productâ aut cucullatâ. | |
| <i>Alis anticis</i> angustis, elongatis, lanceolato-acutis : | 140. CUCULLIA. B. |
| sublatis, margine postico subfalcato. | |
| <i>Alis</i> sordidis, margine postico incurvo : | 130. TETHEA. |
| plus minusve aureis aut flavis : | 134. XANTHIA. |
| <i>Alis</i> anticis acutis, <i>ciliis</i> mediocribus : | 95. MYTHIMNA. |
| subrotundatis, <i>ciliis</i> elongatis : | 142. CALOPHASIA. |
| <i>Thorace</i> posticè cristâ bifidâ. | |
| <i>Alis anticis</i> latioribus, apice acuto ; <i>palpi</i> porrecti. distantes : | 126. THYATIRA. |
| obtusos ; <i>palpi</i> ascendentes. | |
| virescentibus, atro variegatis ; <i>posticis</i> sordidis : | 125. DIPHTHERA. |
| fuscescentibus ; <i>posticis</i> flavescentibus : | 87. CERIGO. |
| <i>Alis</i> anticis angustioribus, apice acuto : | 135. GORTYNA. |
| obtusos. | |
| <i>ciliis</i> brevis : | 107. HADENA. |
| elongatis : | 143. EREMIOBIA. |
| <i>Thorace</i> subcristato. | |
| <i>Alis anticis</i> sublatis, stigmatibus obscuris : | 90. RUSINA. |
| subtristigmatiferis : | 92. GRAPHIPHORA. |
| angustis. | |
| <i>Palpi</i> articulo ultimo ferè abscondito : | 98. CARADRINA. |
| valdè distincto : | 113. MIANA. |
| <i>Thorace</i> haud cristato, squamoso. | |
| <i>Alis anticis</i> sublatis ; obtusis, margine postico rotundato. | |
| pallidis, atro variegatis : | 124. BRYOPHILA. |
| sordidis, <i>ciliis</i> brevis : | 97. SEGETIA. |
| acutis, margine postico subrependo. | |
| <i>Palpi</i> ascendentes : | 147. HELIOTHIS. |
| porrecti, haud ascendentes. | |
| articulo ultimo acuto. | |
| <i>Alis anticis</i> flavescentibus, fulvo reticulatis : | 132. CYMATOPHORA. |
| rufescentibus, fasciâ centrali saturatiore : | 133. COSMIA. |

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| <i>Palpi articulo ultimo obtuso :</i> | 123. ACRONYCTA. |
| <i>Alis anticis angustis, nitidis : (subdeflexis aut incumbentibus.)</i> | |
| lineis transversis : | 88. LYTÆA. |
| haud lineatis. | |
| <i>Palpi articulo ultimo ovato-acuminato :</i> | 131. BOMBYCIA. |
| obtusos : | 115. SCOTOPHILA. |
| <i>Alis anticis angustis, pallidis haud nitidis (incumbentibus.)</i> | |
| lineis transversis : | 96. GRAMMESIA. |
| haud lineatis : | 137. LEUCANIA. |
| <i>Thorace haud cristato, lanigero aut piloso.</i> | |
| <i>Antennis incrassatis aut compressis :</i> | 129. CERATOPACHA. |
| haud incrassatis (sæpè pectinatis). | |
| <i>Corpus breve.</i> | |
| <i>Alis anticis angustis, elongatis, acutis :</i> | 138. SIMYRA. |
| obtusis. | |
| <i>Palpi brevissimi, hirsutissimi :</i> | 116. ACHATIA. |
| porrecti, articulo ultimo ferè abscondito : | 94. ORTHOSIA. |
| exserto, deflexo : | 93. SEMIOPHORA. |
| haud deflexo : | 114. CELÆNA. |
| ascendentes : | 89. CHARÆAS. B. |
| <i>Corpus elongatum :</i> | 122. APATELA. |
| <i>Alæ integres (sæpissimè deflexæ) : corpus gracile.</i> | |
| <i>Palpi brevissimi vix observandi : (alæ incumbentiæ :)</i> | 160. BREPHA. |
| breves, porrecti, vix ascendentes. | |
| articulo ultimo exserto | 153. ACOSMETIA. |
| abscondito. | |
| <i>Alis posticis luteis, fimbriâ atrâ :</i> | 148. ANARTA. |
| pallidis, nitidis, inornatis : | 155. STILBIA. |
| mediocres, ascendentes. | |
| <i>Alis anticis ad basin paulo dilatis.</i> | |
| margine postico rotundato. | |
| rhomboideis, vix nitidis : | 149. ACONTIA. |
| elongato-lanceolatis, nitidis | 150. EUPHASIA. |
| apice acuto, lineis geometricis notatis : | 161. EUCLIDIA. |
| haud lineatis : | 151. ERASTRIA. |
| ad basin haud dilatis. | |
| margine postico repando. | |
| apice subfalcato : | 156. OPHIUSA. |
| rotundato, haud repando. | |
| <i>Pedibus simplicibus :</i> | 152. PHYMETRA. |
| posticis hirsutissimis ; pilis brevibus : | 157. CATEPIA. |
| elongatis : | 154. SCOPELOPUS. |

GEOMETRIDÆ.

| | |
|---|-------------------|
| <i>Alæ plus minusve angulatæ : (antennæ in masculis pectinatæ.)</i> | |
| <i>Alis omnibus acutè angulatis : (corpus subrobustum) :</i> | 175. GEOMETRA. |
| <i>anticis emarginatis, posticis acutè angulatis :</i> | 240. MACARIA. |
| profundè emarginatis, <i>posticis</i> subangulatis : | 242. ENNOMOS. |
| integrè vel subangulatis, <i>posticis</i> acutè angulatis. | |
| flavis, strigis 2-bus luteis : | 179. OURAPTERYX. |
| viridibus, strigis 2-bus pallidis : | 238. CHLORISSA. |
| pallidis, strigâ obliquâ rubrâ : | 192. BRADYPTETES. |
| subangulatis, <i>posticis</i> acutè angulatis : | 239. TIMANDRA. |
| rotundatis, subangulatis. | |
| viridibus, strigis pallidis : | 180. CAMPEA. |
| pallidis, strigis rufescentibus : | 241. ANIA. |
| ferrugineis, lineolis saturatoribus | 194. EURYMENE. |
| <i>posticis</i> rotundatis, eroso-dentatis. | |
| luteis strigis duabus saturatoribus : | 193. EPIONE. |
| variegatis ; (antennis in utroque sexû pectinatis) : | 176. PERICALLIA. |
| <i>posticis</i> rotundatis, integris. | |
| rufescentibus, tenuibus, strigis 2-bus saturatoribus : | 172. HIMERA. |
| flavescentibus, fasciâ saturatore : | 173. CROCALLIS. |

- Alis anticis* flavescentibus maculis atris : . . . 234. VENILIA.
 integris; *posticis* subangulatis.
 viridibus, strigis 2-bus pallidis : . . . 183. HEMITHEA.
 pallidis, strigâ, vel annulo, purpureâ : . . . 191. EPHYRA.
 pulverulentis, strigis saturatioribus : . . . 232. EMMELESIA. B.
 haud strigosus, literis atris : 188. HALIA.
- Alæ* haud angulatæ: omnes plus minus denticulatæ.
 eroso-dentatis, *posticis* subdentatis : 174. ODONTOPEBA.
- Alis anticis* obliquè strigosis, acutis, margine postico vix rotundato.
 vix denticulatis, *posticis* subdentatis : . . . 203. LAMPROPTERYX.
 denticulatis, *posticis* profundè dentatis : . . . 215. SCOTOSIA.
 subobtusis; margine postico rotundato vix
 dentato : . . . 186. HEMEROPHILA.
- Alis anticis* transversim strigosis aut fasciatis.
 acutis, *omnibus* vix denticulatis.
 undulis numerosis ornatis : . . . 217. CAMPTOGRAMMA.
 fasciâ medio insolidâ : . . . 204. ANTICLEA.
posticis profundè dentatis : . . . 218. EUCOSMIA.
 margine postico rotundato, vix acuto.
- Pedibus* simplicibus; *alis* transversim strigosis : . . . 216. TRIPHOSA.
- Tibiis* *posticis* incrassatis, *alis* annulo medio : . . . 219. CHARISSA.
- Alæ* haud angulatæ, *anteriores* integræ, *posteriores* plus minusvè denticulatæ, aut sinuatæ.
- Alis* *posticis* subprofundè denticulatis.
omnibus lutescentibus atomis lunulâque saturatioribus : 177. ANGERONA.
 viridibus, strigis obsoletis pallidis : . . . 182. HIPPARCHUS.
 pulverulentis, strigis 2-bus crenulatis atris : . . . 184. CLEORA.
posticis subdenticulatis.
- Tibiis* *posticis* incrassatis (sæpè fasciculo pi-
 lorum) : . . . 185. ALCIS.
 gracilibus, simplicibus : . . . 187. BOARMIA.
- posticis* margine postico sinuato.
anticis fasciatis.
 fasciâ medio subrectâ, strigis compositâ : 198. LARENTIA.
 angulatâ, *alis* flavescenti-
 bus : . . . 205. ELECTRA.
 sinuatâ insolidâ, *alis* con-
 cinnè strigulosis : . . . 201. POLYPHASIA.
 obliquâ, strigis compositâ : 213. PHIBALAPTERYX.
- haud fasciatis.
 viridibus, strigis saturatioribus : . . . 212. EUTHALIA.
 flavis, strigis undatis fuscis : . . . 178. RUMIA.
 albis, fimbriâ interruptâ atrâ : . . . 210. MELANIPPE.
 pallidis, fusco reticulatis : . . . 233. STRENTIA.
- Alis* *posticis* margine postico obsoletè sinuato.
anticis rufescentibus strigis 2-bus angulatis : . . . 181. ELLOPIA.
 fasciâ dolabriformi : . . . 189. NUMERIA.
 pallidis, strigis fusciscentibus : . . . 236. ACIDALIA.
 maculis atris : . . . 209. ABRAXAS.
- Alæ* haud angulatæ, omnes integræ.
- Corpus* robustum, hirsutum.
- Maxillæ* brevissimæ : . . . 171. BISTON.
 obsoletæ: *alis* sublatiis, aut brevissimis : . . . 169. PHIGALIA.
 angustis, aut nullis : . . . 170. NYSSIA.
- Corpus* gracile, squamosum.
- Alis* plus minus diaphanis, lucidis (fœmina sæpè aptera).
posticis brevibus, basi dilato aut lobato : . . . 225. LOEOPHORA.
 basi simplice, *antennis* ciliatis : . . . 167. ANISOPTERYX.
 elongatis, amplis.
- anticis* obtusis, margine postico rotundato.
 fasciâ medio insolidâ : . . . 224. CHEMATOBIA.
 strigis undulatis fuscis : . . . 223. OPORABIA.
 margine postico versus angulum
 ani subtruncato : . . . 168. HYBERNIA.
 acutis, margine postico rotundato. . . . 222. THERA.

| | | |
|--|------|----------------|
| <i>Alis</i> opacis, obscuris, aut vix lucidis. | | |
| <i>anticis</i> elongatis, angustis. | | |
| <i>Tibiis</i> posticis incrassatis: | 220. | PACHYCNEMIA. |
| gracilibus: | 221. | CHESIAS. |
| elongatis, sublatiis, acutis, strigâ apice obliquâ. | | |
| <i>Tibiis</i> posticis incrassatis: | 214. | LOZOGRAMMA. |
| gracilibus. | | |
| strigis 2-bus punctoque interjecto fusco: | 197. | PHASIANE. |
| fasciâ medio insolidâ. | | |
| <i>Fronte</i> valdè prominulo: | 207. | ANAITIS. |
| vix prominulo: | 206. | CELMA. |
| <i>Alis</i> anticis subelongatis, acutis, margine postico subtruncato. | | |
| fasciâ medio solidâ. | | |
| basi subtus haud cristato: | 200. | HARPALYCE. |
| cristâ elongatâ absconditâ: | 202. | STEGANOLOPHIA. |
| subelongatis fasciâ medio insolidâ: | 231. | APLOCERA. |
| haud fasciatis, flavis aut ferrugineis: | 163. | SPERANZA. |
| acutis, margine postico rotundato. | | |
| haud fasciatis. | | |
| <i>Pedibus</i> brevibus (<i>alis</i> erectis): | 164. | BUPALUS. |
| longissimis: (<i>alis</i> immaculatis): | 208. | SIONA. |
| pallidis, strigis 2-bus transversis atris: | 166. | MÆSIA. |
| flavis strigis 2-bus obliquis fulvis: | 196. | ASPILOTES. |
| elongatis, obtusis, margine postico rotundato. | | |
| <i>posticis</i> abbreviatis: | 226. | EUPITHECIA. |
| haud abbreviatis. | | |
| <i>Pedibus</i> posticis barbatis aut crassis: | | |
| transversè strigosis, fimbriâ undulatâ: | 235. | PTYCHOPODA. |
| haud strigosis, margine atrâ: | 237. | PÆCILOPHASIA. |
| <i>Pedibus</i> posticis simplicibus: | 228. | HYRIA. |
| <i>Alis</i> omnibus rotundatis. | | |
| unicoloribus, atris aut testaceis: | 229. | MINOA. |
| niveis aut luteis: | 227. | CLEOGENE. |
| atris, strigis saturatioribus aut fulvo-fasciatis: | 162. | PSODOS. |
| flavescentibus, strigis purpureis: | 195. | PELLONIA. |
| albis, strigis transversis fuscis: | 190. | CABERA. |
| fimbriâ interruptâ atrâ: | 211. | XERENE. |
| niveis, strigiis obsoletissimis fuscescentibus: | 230. | BAPTA. |
| pulverulentis, strigis anastomosantibus fuscis | | |
| (antennis valdè pectinatis:) | 165. | FIDONIA. |
| <i>anticis</i> fasciâ medio subsolidâ: | 199. | CIDARIA. |
| strigis numerosis undatis: | 232. | EMMELESIA. |

OBS.—RHIZOLITHA, a name adopted from Mr. Curtis, corresponds with the first section of the genus *Hadena* in my Catalogue, or the first nine species of that genus in the second volume. *Hadena* being retained for the remainder of the genus, or the section B, of the Catalogue—the latter group still requires subdivision. See vol. ii. p. 180 and 185.

XANTHOLEUCA is the name I have employed to designate *Xanthia croceago*, which seems to form the type of a distinct genus from *Xanthia*. See pages 67 and 326.

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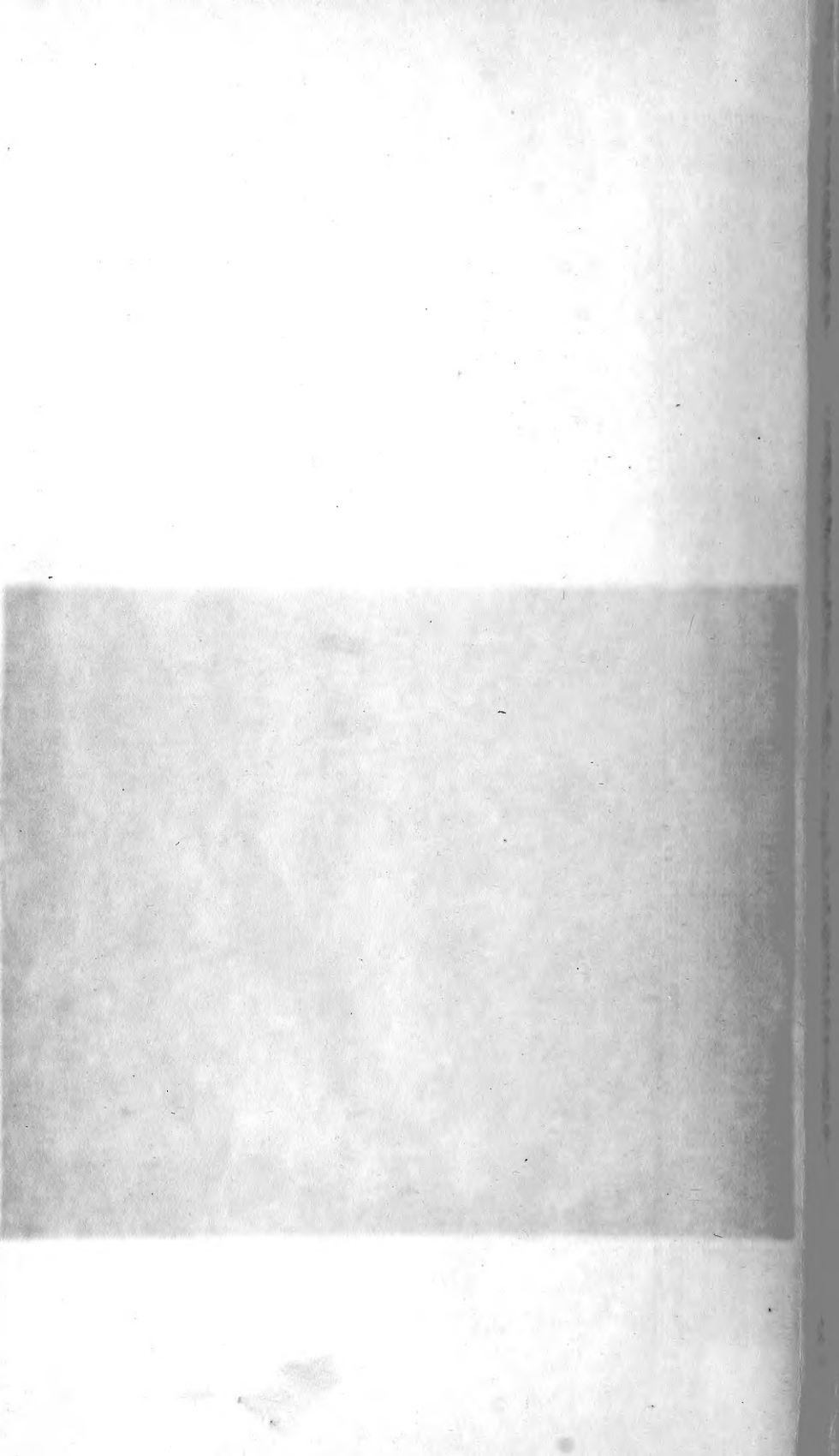
Page 71, line 3, and 2 from bottom; *dele* *.

- 80, — 17, *for* larger, *read* large.
—, — 22 and 25, *for* impuncta, *read* unipuncta.
104, — 12, *for* variety, *read* rarity.
110, — 2, *for* nearly, *read* scarcely.
121, — 27, *for* alpi, *read* Pulpi.
124, — 11, *for* sublaneolate, *read* sublaneolate.
—, — 18, *for* stigmatiferous, *read* stigmatiferous.
143, — 24 and 25, *for* Psychophora, *read* Pœcilophasia.
145, — 19, *for* *Ins. Succ.* *read* *Ins. Succ. pars i. p. 9.*
—, — 28, *for* Pinetani, *read* Pinetaria.
157, — last but one, *for* Lemure, *read* Lemures.
158, — 13, *for* prodromaria, *read* prodromarius.
230, — 26 and elsewhere, *for* Strand-on-the-green, *read* Weston-on-the green.

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